

187PC – Prologue

Paul slipped into position an hour after sunset. It would be a long, cold night before he would approach target. He lay plastic on the sand, topping it with a tarp. He erected his Trango 3.1 tent, lay out his Therm-a-rest pad and inflated it. His Slumberjack sleeping system topped that.

He opened his rifle case and took out 3 long arms, the first a McMillan Tac-50 A1R2 with a Nightforce NXS riflescope – 5.5-22×56mm – .250 MOA, Mil-Dot Reticle and Jet titanium suppressor. He had selected Hornady 750gr A-MAX match ammo and was carrying 3 full magazines. The second rifle was also a sniper rifle; a Springfield Armory M-21 also fitted with a Nightforce NXS 3.5-15×56mm riflescope, Harris bipod and Surefire FA762K. The most accurate rifle in the world was just a hunk of iron without quality optics. The final long arm was a Mossberg 590A1 SPX shotgun with ghost ring sights and a bayonet. Tonight he had a Surefire light attached to the special foregrip.

His handguns were both made by Glock, the model 21SF and model 30SF with spare magazines for the model 21. The model 21 magazines would work in either gun and he had 2 in an ankle holster like the model 30 plus 4 in double magazine pouches on his belt. The pistols were carried loaded with a round in the chambers.

Once his camp was in order, Paul pulled out an MRE and activated the heater to warm the entrée. He ate to live, not the reverse, and barely noticed what the entrée was. After he finished eating, he got out his multi-fuel stove and perked a pot of coffee, a special treat.

After replacing his weapons in the case, he enjoyed his coffee and watched the stars. The night was partly cloudy and he couldn't really make out that many stars. His mind wandered, reminding him what brought him here at this particular moment. He was saying goodbye to many of his guns, having purchased replacements.

Paul and Michelle met in college; they were both majoring in Liberal Arts, she in History and he in Philosophy. It had been logical choices for both of them, coming from liberal backgrounds. Starting college in the fall of 2005, both voted for Barack Obama in the November 2008 elections. He easily carried the election and both hoped that the change he promised would see the end of the wars in Afghanistan and Iraq.

Both soon learned that the new president could have taught FDR a thing or two about socialism. On February 10, 2007, Obama announced his candidacy for President of the United States in front of the Old State Capitol building in Springfield, Illinois. The choice of the announcement site was viewed as symbolic because it was also where Abraham Lincoln delivered his historic "House Divided" speech in 1858. Obama emphasized the issues of rapidly ending the Iraq War, increasing energy independence, and providing universal health care, in a campaign that projected themes of *hope* and *change*.

It took one year to pass National Healthcare and both wars were ongoing. He seemed to have difficulty dealing with the economy and foreign politicians. His positions on many issues of the day were contrary to public opinion. He'd get his game legs under him and it would be alright.

During their senior year, Paul proposed to Michelle and she accepted. They would be married after graduation in June of 2009. Paul's parents had a college annuity to pay for his education and because he worked while he attended school, enough remained in the annuity to fund his getting a Master's degree. Michelle hadn't worked and would get a job wherever she could after graduation.

Paul suggested that she get a Master's in History too. He would be working as a teaching assistant and she could too. Between the money left in his annuity and what they'd both earn as teaching assistants, they could afford the additional education costs. Michelle was relieved, a degree in History and a dollar won't get you a cup of coffee anywhere she knew.

The clouds began clearing and the moon peaked through. He got up and relieved himself to make room for more coffee and settled back in the same position as before.

He thought about graduate school. Electing to have a small wedding allowed Michelle's parents to contribute additional money to her education. Paul's parents were slightly better off financially than Michelle's parents and contributed nearly twice what her folks did. Their college funds would see them to their Master's degrees and possibly a PhD for one or both.

By June of 2011, both had Masters Degrees in their fields and were considering a PhD program. About the only thing more useless than a Degree in History is a Master's Degree in History. Michelle would get her PhD and take a position teaching college courses in History. The same might be said for a Master's Degree in Philosophy. Philosophy is the study of reality, knowledge, and values, based on logical reasoning rather than observation. This includes general and fundamental problems, such as those connected with existence, mind, and language. The word *philosophy* comes from the Greek *philosophia*, which literally means *love of wisdom*.

The Father of Modern Philosophy is René Descartes, *Cogito ergo sum*. We learned that his claim, I think therefore I am, was the very proof of our existence. In the latter part of the 19th, the 20th and early part of the 21st Centuries, Philosophy became extremely diverse with a multitude of schools of thought. I decided that Nietzsche was peachy to coin a phrase and had my emphasis. It was sort of like playing Wheel of Fortune; the casino game where you put your money on a number and hope like heck the ball falls in your slot. The house advantage or edge of this game is one of the highest of most casino games. In the United States it ranges from 11.1% on the \$1-bill bet to more than 24% on the joker or logo (when it pays at 40 to 1). In Australia the house edge is 7.69%

on all bets such that the payouts are: 47:1, 23:1, 11:1, 5:1, 3:1 and 1:1 on a 52 segment wheel.

It was during this period that circumstances changed everything. The event occurred on November 6, 2012, Election Day. Michelle and I voted individually due to our schedules. We had plans to go out for pizza after we got home and changed into something casual. She typically arrived home before I did.

By 9pm I was on the phone calling the local hospitals to see if she'd been admitted. She hadn't so I called the police to see if she'd been involved in an accident. She hadn't. As of December 2008, there were 102,764 missing person cases still active in the National Crime Information Center, according to the Federal Bureau of Investigation. In 2008, the FBI recorded 778,161 as missing. There is no single, straightforward reason why people go missing; accordingly, many types of missing person's cases exist. These cases fall broadly into two categories: voluntary (such as runaways) and involuntary (such as kidnapping).

The Missing and Unidentified Persons Unit in the California Department of Justice assists law enforcement and criminal justice agencies in locating missing persons and identifying unknown live and deceased persons through the comparison of physical characteristics, fingerprints and dental/body X-rays.

In California, a missing person is someone whose whereabouts is unknown to the reporting party. This includes any child who may have run away, been taken involuntarily or may be in need of assistance. It includes a child illegally taken, held or hidden by a parent or non-parent family member.

There is NO waiting period for reporting a person missing. All California police and sheriffs' departments must accept any report, including a report by telephone, of a missing person, including runaways, without delay and will give priority to the handling of the report.

Schools are part of the network to help find missing children, not only through notices required to be given to a public school district or private school within 10 days of a child's disappearance but also through use of our Missing Person Bulletin.

By making photographs of missing persons available, we seek to aid in the identification and recovery of missing persons. According to the National Center for Missing and Exploited Children, one in six missing children is recovered as a direct result of someone recognizing their photo and notifying authorities. We also offer resources on this website for locating missing persons and safeguarding your children.

Paul called the Lancaster, LA County sheriff's substation and was asked to come to the station to fill out a report. He should bring a recent photograph if available. Paul explained the circumstances of the disappearance, Michelle and he were going out to eat and she hadn't arrived home by 9pm when he called Community Hospital, AV Hospital

and the new Palmdale Hospital. He had also called the Palmdale substation and finally the Lancaster substation, where he was advised to come to the office and file a report. The picture he brought was less than 1 year old.

Paul was advised that the sheriff's office would put out a missing persons bulletin and should she show up, he was to call them immediately. He went home only to find Michelle still missing. He made a pot of coffee and stayed up, waiting. He apparently fell asleep while waiting and woke early the next morning to find no Michelle. He got cleaned up, dressed and headed into work/school. He'd given the substation both their home phone number and his cell phone number as well as Michelle's cell phone number. He'd tried it several times and it always went to message.

Noticing Paul's apprehension and having learned the story about the missing Michelle, his supervisor referred him to a Psychiatrist at UCLA where both attended school and worked. The Doctor basically told him to keep the faith and gave him an Rx for an anti-anxiety drug, Xanax, 0.25mg TID.

Three weeks after Paul filed the report, the sheriff's substation called. They had found her car and needed him to come to the station and verify the identification. No, they didn't have any leads on Michelle, yet.

"Have you been drinking?"

"No, why would you ask?"

"You seem a little... loopy."

"The Doc put me on Xanax, 0.25mg TID."

"I see. Come with me please."

"Is this her car?"

"I have a set of keys, let's check. Yep, this is her car. That's her bag inside. Have you searched the car?"

"May we?"

"Yes, here are the keys. Let me know what you find out."

"Was there any indication that there were any problems in your relationship?"

"None that I'm aware of. Due to our schedules we have to both drive some days. I voted after I got home while she was released early to come up and vote. Where did you find her car?"

“Wal-Mart found it in their parking lot in Palmdale; the store at 47th Street East and Avenue S.”

“I don’t believe either one of us has ever been there before.”

“They try to keep an eye open for abandoned vehicles, but missed this one until today.”

“Is it possible that someone else was driving the car?”

“Anything is possible. Do you realize the implications of what you just asked?”

“I was thinking that she might have gotten car jacked and someone took her car.”

“That’s one of the possibilities. If that’s the case, where is she?”

“Oh. I’ve got to sit down. Did you just ask where her body is?”

“Can you think of any other explanation?”

“Not off the top of my head, no.”

“How about the possibility that she met someone else and decided to skip?”

“There were no indications of anything like that. We’ve been married since June of 2009, 3½ years. We had decided to wait on children until we both completed our degree programs. We’re working on PhDs, hers in History and mine in Philosophy. We intend to teach. We still have about 2 years to complete the degrees.”

“What aren’t you telling me? You’re still presuming she’s alive and missing, aren’t you?”

“Of course I am. It’s impossible for me to think of her in any other way.”

“I hope you’re right Mr. Grey. Our office will let you know of any developments. Would you permit a lab technician to stop by your home to get DNA samples and possibly her fingerprints? The person would have to take a set of yours for the purpose of elimination.”

“Sure, anything that would help. A weekend day would be better, time wise.”

“Is tomorrow ok?”

“I should be home all day.”

The authorities never found Michelle, leaving her on the missing persons list. Apparently her parents had had her prints taken in High School and they provided the fingerprint card to the authorities. That was four years ago.

187PC – Chapter 1

The first written appearance of the proverb “revenge is a dish best served cold” is often wrongly credited to the novel *Les liaisons dangereuses* (1782); it does not, in fact, appear there in any form. Its earliest identified appearance in European literature is in the 1841 French novel *Mathilde* by Marie Joseph Eugène Sue: *la vengeance se mange très-bien froide* – there italicized as if quoting a proverbial saying – published in English translation in 1846 as revenge is very good eaten cold.

She didn't skip, I knew better. Eventually, I packed her things and stored them in the attic of an old house I bought. After completing my Doctorial work, I went to work as an Assistant Professor of Philosophy at the University of Nebraska in Lincoln. The city was about 60 miles southwest of Omaha and 100 miles east of Grand Island. It was where I bought the house.

Some of my fellow professors got me interested in shooting clay pigeons. It wasn't trap or skeet. It was just a bunch of guys in a field using a hand thrower to launch single clay targets. I had never shot before and there wasn't anything instinctive about the sport. I did learn how to lead the target and was sometimes getting 18-20 out of 25 targets on a very good day.

A few of the group was also engaged in long range rifle shooting. They were shooting 800 meters with .30 caliber rifles and 1,000 meters or more with .50 caliber rifles. I already had ear plugs and ear muffs so I went along to observe them practicing. John had a Springfield Armory M-25 White Feather rifle. He allowed me to shoot ten rounds and I came away hooked. I went a second time with them and did even better. That experience led me to buy a Super Match. The problem with the M-25, from my viewpoint, was the lack of backup sights. The differences between the M-21 and M-25 were minor and the M-21 was less expensive. Springfield Armory's 2012 catalog didn't show the M-25 any longer.

I wanted the carbon barrel in an adjustable McMillan M3A thumbwheel stock. I called Springfield Armory in Illinois and asked if it could be done. They said yes. Then I asked if they could do it and was told it would have to come through their custom shop. I asked how much and he said if I had to ask how much, I couldn't afford it. I told him to do it and gave him the name of a gun dealer in Lincoln to ship the rifle to. With the replacement stock, the Super Match became an M-21. Just to be nasty, I paid for it with my AMEX card. I bought my scope from Optics Planet except for the 2 AN/PVS-27 MUNS which came from the manufacturer.

Piece by piece I went from a liberal, paranoid over firearms, to a member of the biggest club in America, gun owners. For a shotgun I bought a Remington 11-87, with a spare smoothbore deer barrel and rifle sights, my hunting and clay pigeon gun. I also bought a Mossberg 590A1 SPX for non-hunting use. I then bought handguns, Glocks. I tried the model 21SF and was comfortable with the gun so I bought it and a model 30SF. All the extra magazines were for the 21SF because they would work in the 30SF.

The .45acp ammo I selected was manufactured by Speer. Two full 1,000 round cases of 230gr Lawman for practice and one 1,000 round case of Gold Dot for carry. I got the permit but couldn't carry on campus so the pistols were locked up in a case in the rear of my Chevy.

John had a Barrett M82A1 that he used for 1,000 meters and further. Barrett had developed a suppressor for the M107 and sold a kit to convert the M82A1 to use the suppressor. John had his rifle converted and was saving up for the suppressor. There were many companies manufacturing .50BMG caliber rifles. I'd been reading every review I could find on the subject. Around the time Michelle had gone missing, McMillan brought out a new Tac-50, the A1R2.



They hadn't reduced the recoil but had succeeded in spreading it out over a longer time period which had the apparent effect of reducing the recoil. That appealed to me. I'd known I was going to buy a .50BMG rifle when I got the AN/PVS-27s because I bought 2. I was turning into a TOM or Jerry... you know the authors. They were my guides as I moved into prepping.

The pay isn't all that bad for a tenured Professor and I was close to achieving tenure. I had already become a full Professor. Hornady was about 100 miles west in Grand Island. I got hooked up with them by phone, inquiring about buying ammo. They said they'd stopped retailing the stuff. I asked if they had a dealer Will Call. They asked me what I was looking for and I said .308 178gr BTHP match and .50 A-MAX match. Did I have a FFL? Only a C&R, I admitted. Close enough if I'd buy the minimum quantities.

The minimum quantities were almost one of those *Elizabeth Honey, I'm commin' to join ya* moments. I'd seen reruns. But, TOM said... so I bit the bullet. Got it wholesale too! At Ease, I didn't save THAT much. I had the ammo so I had to buy the rifle... the Tac-50 A1R2. I added magazines, parts kits and took the Nightforce NXS riflescope – 5.5-22x56mm they had available and recommended. Finally, I called Mike's Gun Sales and Service and discussed the suppressor.

They'd have to build the suppressor and ship it to a class 3 dealer. When my payment cleared, they'd supply a serial number to the dealer so we could get the paperwork started. It was much faster dealing with the BATFE the 2nd time around. We had the stamp when the suppressor arrived and the dealer had a gunsmith who could install it.

That's when I ended up with the Plano gun case that was fitted for all 3 of my tactical long arms. Let me tell you, that case was heavy when empty and with all 3 weapons tucked into their cutouts; it was a struggle picking it up and carrying it any distance. I realized that I, Paul Grey, was out of shape. I got a trainer and told him what I wanted to achieve, but warned him not to kill me in the process.

Rudy was formerly Special Forces of one stripe or another. He never said and I never asked. Probably a SEAL, I had to learn drown proofing. He trained me in stages, first getting me from the couch potato state to the state of a minor athlete. That's when he turned the screws and over the second year, he got back in his fighting trim and brought me along for the ride. We were running long stretches wearing packs filled with bricks.

Meanwhile Rudy got involved in helping me get equipped. The first item we ordered was a Kifaru EMR backpack in MultiCam with several accessories. We also ordered a Navigator in MultiCam as a patrol pack. As we added equipment, I realized that he was a Jerry D Young fan. Brand names like Katadyn, Slumberjack, Therm-a-rest and so many more I recognized from Jerry's stories.

The EMR was a huge pack I viewed with trepidation as it was filled with our acquisitions. Rudy already had both packs and we were outfitting mine the same as his. Since the Mossy included the OKC3S USMC Bayonet he said I could get by without another knife. If I wanted some, he recommended the Victorinox Swiss Army Knife, the Buck 110 folding hunter, the Spyderco CO8 Harpy, the Cold Steel 24" Latin Machete or similar knives by reputable manufacturers. Rudy also suggested a Gerber multitool or a Leatherman. He preferred the Gerber, but I selected the black Leatherman Super Tool 300. I also bought a Cold Steel Laredo Bowie in San Mai III.

Once I was equipped, Rudy and I spent Sunday afternoons working out to avoid losing the edge. I also jogged evenings to maintain the muscle tone in my legs and had a set of weights I used to maintain my upper body muscles. I'd given up my pipe when I started to get in shape, but the craving was still there and I added several cartons of cigarettes to my supplies.

I bought prepper supplies from 3 sources, Emergency Essentials, Walton Feed and Nitro-pak. The things I bought from Nitro-pak were the Mountain House pouches Emergency Essentials were out of and the Hungry Man MREs. I stored those in the basement where it almost never got warm. In the end, there was enough Long Term Storage for one person for 10 years or 2 persons for 5 years not counting the pouches or MREs.

John and I shot our .50 caliber rifles twice a month on Saturdays. The ammo ran roughly \$5 a round and we didn't have a supply sergeant to replace what we shot up. I had my brass reloaded using the Hornady A-MAX match bullets and the powder and primers Hornady used. In addition to having the ammo reloaded, I bought replacement ammo on a 1:1 basis. Those Saturday's were \$200 affairs counting the reloading. I was building my ammo supply in the process.

After graduation exercises, attendance mandatory, I generally spent my summer months studying additional Philosophies, staying in shape and shooting. Rudy and I would run 3 days a week in the mornings, recovering the muscles my jogging didn't keep in their prime. On July 8, 2017 I got a call.

"Paul Grey?"

"Speaking."

"This is Detective Sergeant Hal Garraway with the Los Angeles County sheriff's department. Are you the individual who filed the report concerning Michelle Grey?"

"Yes I am. Did you finally find her?"

"Yes, the identification was confirmed using mitochondrial DNA her mother provided."

"She's dead?"

"I'm sorry. Her body was located by a Palmdale resident quite by accident. He notified the Palmdale substation and they brought us in to investigate. All that remained was her skeleton. Could you possibly come to Los Angeles?"

"I'll get the first flight out. Wait, on second thought, I'll drive. I should be there in two or three days."

"Drive carefully Mr. Grey, there's no reason to hurry. Funeral arrangements haven't been scheduled and she will most likely be interred in San Diego."

"That would make sense; her parents live in San Diego."

"You haven't kept in touch?"

"Regrettably, no."

"Her parents were killed in an auto accident 2 years ago. The DNA sample we used was provided by her mother at the time your wife disappeared. What are you driving?"

"A Chevrolet 3500 heavy duty crewcab dually back fitted with a Cummins non-electronic diesel replacing the 6.6 L Duramax diesel and a 6 speed manual transmission with a

manual transfer case. It has a non-standard 167 inch wheelbase. It also has a service box.”

“Sounds expensive.”

“It was.”

Boy was it ever. But I got a fair shake on the all but new Duramax diesel, automatic transmission and automatic transfer case. It took the sting out and I also sold the non-standard length box before the service box was added. A portion of the box immediately behind the cab was filled with a Transfer Flow 98-gallon diamond plate diesel tank that almost doubled the fuel capacity. The original dual factory tanks had been replaced with 54-gallon tanks making a full fuel load of 206-gallons, enough to get to Los Angeles from Lincoln. I planned to keep an eye open as I crossed on I-80 and buy cheap diesel when I saw it. The truck could run on B-100 with a minor tweak and I usually bought B-20.

I stopped in Salt Lake City the first night and in Truckee the second night. I was at the sheriff’s office on the afternoon of the third day.

“Paul Grey to see Detective Sergeant Hal Garraway.”

“I’ll get him, please be seated.”

No, I wasn’t armed. California doesn’t recognize the concealed carry permits issued by anyone except California sheriffs. Los Angeles County was well known as being a county where permits were nearly nonexistent.

“Mr. Grey?”

“I’m Paul Grey.”

“Have a good trip?”

“Excluding the reason for the trip, fair. No problems on the road but motel prices were sure high. Mostly ate fast food to keep expenses down.”

“Come with me and I’ll give you the details.”

“Thank you.”

“Have a seat. Something to drink?”

“Give me a minute and I’ll get a Coke from the machine.

“Damn Sergeant that was an expensive Coke. Two bucks is ten cents an ounce.”

“Water is a buck fifty. How do you like living in the Midwest?”

“It has its compensations. Fuel is cheaper for one thing and nobody sell \$2 Cokes.”

“What are you doing these days?”

“I’m a Professor in the Philosophy Department at the University of Nebraska.”

“Tenured?”

“Soon. So, ready to fill me in.”

“Your wife’s skeleton was found by an old man out walking his dog, a Yorkie. He said it was extremely unusual for him to be out and about due to his various medical conditions. His wife took him along when she went to Wal-Mart and while she shopped, he walked his dog in a small open space of undeveloped property.

“It was apparently a shallow grave that had a bone sticking out and he said he recognized it as a femur. We did a thorough background check and he had human physiology as an undergraduate at Wartburg College. He claimed the Professor used part of the Medical School entrance exam for their final.

“This guy is seventy-four and has been crippled for nearly 20 years. Anyway, he went back to the car and waited for his wife to come out of Wal-Mart and used her cell phone to call the Palmdale substation to report the body. Then he went back to the location and waited for the deputies to show up. They secured the scene and brought him to the Palmdale office for an interview.

“Are you sure he wasn’t involved?”

“The guy hasn’t driven a car since 2003 and commented that the night his wife got blocked in at Chucky Cheese, she had to tell him how to start the car. That was around Christmas 2006. I asked him what he did to fill his time and he claimed he writes.”

Hmm, Palmdale and a writer; did he perhaps write PAW Fiction. I didn’t ask but I did ask his name. The Detective wasn’t forthcoming with that. What was the guy hiding?

“Is his first name Gary?”

“How did you know that?”

“Well, there’s this writer who writes a rather specialized line of fiction who lives in Palmdale. He goes by Tired Old Man, but his first name is Gary. I don’t remember his last name at the moment but it should come to me.”

Michelle had a term life policy in force at the time she disappeared. I kept it up. It was a large policy, \$250,000 and we both had one.

“Detective, has the medical examiner determine the time of death?”

“Not to the minute or day but within several days of when she disappeared. Why?”

“We both had term life policies. I’ve kept hers up. If I can get a death certificate indicating the approximate time of death, I can file a claim and have the funds necessary for the final expenses.”

“How large were the policies?”

“One quarter million each.”

“We didn’t realize you had a motive.”

“What motive?”

“A one quarter million dollar insurance policy.”

“It’s a public record isn’t it? Surely MetLife would have told you if you’d have asked. I’d have told you had you asked. So I’m a suspect now?”

“No, you’re not. You didn’t have an opportunity. We did check with your neighbors and verified you were home until we told you to come to the station. We also checked your phone records and they confirmed the calls you made. Your wife died from a gunshot. Did either of you own any guns?”

“No. The first time I ever fired a gun was after I moved to Lincoln and went clay pigeon shooting with a group of my fellow Professors. I eventually got into the gun culture and have acquired 2 rifles, 2 shotguns and 2 pistols.”

“Tell me about your guns.”

“My first purchase was a Springfield Armory Super Match with an adjustable McMillan M3A thumbwheel stock, making it an M-21. It was equipped with a Nightforce riflescope, night vision, suppressor and Harris bipod. My next purchases were shotguns, a Remington 11-87 with a full set of Rem chokes and a spare smoothbore deer barrel with rifle sights and 2 Rem chokes. I also bought a Mossberg 590A1 SPX for tactical use.

“Next, I bought Glock 21SF and 30SF, no suppressors. Finally, I bought my best rifle, a McMillan Tac-50 A1R2 with Nightforce riflescope, night vision, and Jet suppressor. That’s all the guns I have at this time.”

“Are you armed?”

“What the LA County sheriff is issuing carry permits now? I’m not armed because you folks don’t recognize my Nebraska concealed carry permit. You said Michelle was shot. What caliber?”

“Nine millimeter parabellum.”

“Never owned one and I never will so long as I have a .45acp. Ott. TOM’s last name is Ott.”

“If you must talk to the man who found your wife’s body, let us try to set something up. Don’t bother whoever it is you suspect it may be.”

“I’d like to talk to him if you can arrange it.”

“Only if he agrees.”

I realized after I left the sheriff’s office and headed for a motel that I had all of his stories on my laptop and he mentioned what I presumed was his address in several. I’d have to search the pdf files looking for Moonraker. His street was named after the James Bond movie. The Sergeant had given me a copy of the death certificate and I could check with the insurance agent who sold us the policy the next morning. Maybe I should consider a trip to the Antelope Valley.

I ended up tied up with the insurance agent until almost noon. I stopped at a Panda Express for lunch and returned to the motel. There was a message to call Sergeant Hal Garraway. I called him and he asked me to meet him at his office between 3:00 and 3:15. When I arrived, he was on the phone and I had to wait.

“I was just talking to the man who located your wife’s body. He agreed to meet us at the Palmdale sheriff’s station tomorrow at 1:00.”

“His address is 4560 Moonraker Road Sergeant. He included it in several of his stories. I didn’t check for a phone number.”

“They had it changed the day after he found the body due to unwanted phone calls. He said he regretted giving all of his guns to his youngest son. He said he was going to replace the 590A1 and was going with Brenneke slugs and 3” Remington buckshot.”

“He’s referring to the 1³/₈oz Brenneke Black Magic slugs and the Remington Express Magnum 15-pellet 00 and 41-pellet #4 buckshot.”

“So you know who he is?”

“His pen name is Tired Old Man and his given name is Gary D Ott. I don’t recall what the D stands for. He was born in Alameda in 1943 but was raised in Iowa beginning in

1946. He graduated from High School in 1961 and entered the Air Force. He was stationed at Edwards from 1962 through 1965. He returned to Iowa, got a BA from Wartburg and an MBA from Drake. He enrolled in Law School but quit when it gave him ulcers, a lifelong problem since. He worked for the Revenue Department from 1973 until 1992. He got in trouble over a sexual harassment issue and quit his job.”

“Who did he harass?”

“No one. His wife worked for Disney at the time and he was handing out a sexual harassment questionnaire that made the rounds at Disney. Someone objected and he got called on the carpet. He figured that Iowa would make him the scapegoat for several pending cases and resigned.”

“He didn’t tell us that.”

“Is it important?”

“Not really. It just means he has skeletons in his closet.”

“Everyone has those. I should have focused on René Descartes and instead focused on Nietzsche because someone said he was peachy. I took the guy seriously not realizing he was joking.

“Well, he’s a patron member of the NRA and has been a Life member since 1964. He joined while he was in the Air Force. He had an impressive weapons collection at one time but drank it up, according to him. He later rebuilt around a M1A Loaded model, adding a Mossberg 590A1, a Taurus PT1911, a .32acp war souvenir and a .22LR Saturday night special.”

“Maybe it’s just as well he gave his son his guns, some are illegal in California.”

“TOM has said that he never met a gun law he didn’t want to break. He really wanted a Tac-50 and suppressors for it and his M1A Loaded model. In later stories he talked about the AN/PVS-27 the Marines use.”

“You followed his suggestions?”

“Not entirely. TOM didn’t like auto loading shotguns. I assume it was something from his past. He didn’t like Glock handguns, preferring the M1911 pattern.”

“The Taurus...”

“Yes, it is a M1911 pattern with sixteen extra features.”

“How did he get it?”

“Sorry, that would be telling. Besides it turned out to be complicated.”

“Just be at the Palmdale substation before 1:00 tomorrow afternoon.”

187PC – Chapter 2

He wasn't particularly impressive. I'd judge him to be around 5'5 and around 140-150 pounds. His hair was turning gray slowly and his hairline receding just as slowly. Homemade haircut, a butch. He tended to keep his lips over his teeth but several were missing and most decayed to one degree or another.

"So you're the famous Tired Old Man."

"Infamous is more likely."

"I have your CD."

"Thank you... every little bit helps. I've been saving the money from the CDs to replace my firearms and get what I really want."

"I actually have most of what you want except for the pistols. I bought Glock handguns."

"Yeah, Jerry likes those. He lives in a small apartment near downtown Reno. We keep in touch with Skype and have bull sessions some nights a week. He and I sometimes edit each other's stories."

"So, what's he like?"

"Never met him face to face. He's smart and has a vast store of information. It's like I've said, we're the same, yet different."

"I understand you found my wife's remains."

"It was an accident finding them. I wanted to take Elizabeth for a walk in the desert. Sharon was going to Wal-Mart so I got dressed and rode along. There's a little patch of undeveloped land to the south of Wal-Mart. Elizabeth was sniffing at a bone sticking up from the sand and I thought I recognized it. I pulled it out and it was an intact femur. Left it lay and hurried back to the Honda. When Sharon got back, I used her cellphone to call 911.

"When the operator asked what was the nature of my emergency, I told him I'd found a body and the location. I humped backed to the spot and waited for the cops. They hauled me in, put me through the 3rd degree and I went home. End of story. I'm sorry for your loss."

"I see. Thank you for telling me what happened. If I wanted to talk to you again, do I have your permission to come by?"

"I suppose. I smoke and I don't want any complaining about the smell of smoke."

“Well, it’s your house.”

“Another accident. It was in Sharon’s name until we refinanced it the last time. Now it’s in my name and could stand more than a few repairs.”

“Not enough cash from your Trust Fund?”

“I wrote about that, didn’t I?”

“You put details about your whole life in your stories.”

“Me and my big mouth.”

“I’ll be in touch.”

With the insurance settlement, I could bury Michelle and buy most any new firearms and ammo I wanted. I was deeply involved in the gun culture these days. When they released her remains, I had the arrangements made and buried her next to her parents in San Diego. Next, I got on I-8 and headed to Arizona.

In Phoenix, I bought a Tac-50 A1R2 identical to mine. I also bought an identical Super Match and McMillan fit the same stock to the action. In the shotgun department, I only bought the 590A1 SPX. I did buy the Brenneke and Remington shot shells. I referenced one of his later stories and added the sling, sidesaddle and butt cuff. I even popped for the 2 MUNS.

Now came the hard part, returning to Palmdale and rewarding TOM for finding Michelle’s remains. I was certain he wouldn’t refuse what I wanted to give him as a reward, my guns and a few new purchases.

Tac-50 A1R2, my gun

M-21, my gun

Accurized Mini-14 with folding stock and 13 30-round ProMag magazines, new

Mossberg 590A1 SPX, as described, new

Taurus PT1911B-1 with light rail and Surefire light, new

Walther PPK .380, new

Cimarron revolvers, 3½”, 4¾”, 5½” and 7½” barrels, new

Winchester 1886 in .45-70, new

Winchester 1892 in .45 Colt, new

Winchester 1894 in .30-30, 24” barrel, new

I got up, cleaned up and put my gear back in the Chevy. I had camped between Little Rock and Pearblossom. When I called ahead, all of the motel rooms were booked.

“TOM, Paul Grey. May I stop by; I have something for you and need a minor favor.”

“You have the address, come on over.”

“Here you go, Kool 100s box if I recall correctly.”

“You rob a bank?”

“I’ve been to Arizona.”

“Ah, the Res. What can I do for you?”

“I had to camp out last night and could really use a shower.”

“That’s a clean towel and wash cloth on top of my printer. Let me show you the shower.”

“Thanks, I’ll get my toiletry bag.

“Man, that’s better.”

“I appreciate the smokes but you didn’t really have to spend the money.”

“That not what I have for you. Those were just something I happened across. Could you open your garage door?”

“Sure, but the garage is a mess.”

TOM stood there with his chin on the floor as I unloaded the firearms and ammunition.

“Jeezus H. everything I ever wanted and then some. That’s what, \$50,000 worth of stuff?”

“A little more actually. The sniper rifles aren’t new; they’re the ones I had. I have replacements on order. In the ammunition department, I bought 4 cases each of Brenneke slugs and Remington 15-pellet but only 2 cases of #4 buck. The 5 cases of 5.56×45mm are Lake City overruns of M855A1 on strippers. I just gave you the .50BMG and .308 Hornady I brought along. You will receive a shipment of more. There are both cowboy loads and Buffalo Bore loads for the Winchesters.

“You really do like beans and rice!”

“I do, the wife doesn’t.”

“You’ll have to get your own leather except for the scabbards.”

“I don’t ride, horses terrify me.”

“Salina?”

“You read about her?”

“It was a standing joke in your 3 Amigos stories.”

“Here, I picked this up at the location and didn’t mention it to the cops.”

He handed me a necklace, with a broken chain, that was part of a set of 2. Each had half a heart and placing the pieces together, it read *Je t’aime*. The other half, her half, had been in the belongings the sheriff’s department returned to me.

In California the crime is §187 of the Penal Code, frequently referred to 187PC. I had never owned a 9mm pistol. I thought she was cheating on me and I caught them red handed in the Wal-Mart parking lot. He’d just shot her. I struggled with him and got his pistol, pistol whipping him with it. I drug her to the larger open desert. I went into Wal-Mart and bought a long handled shovel and went back to the field and buried her. I hadn’t realized at the time that the chain on my half of the necklace had broken.

I transferred him to my vehicle and shot him before dropping the body down a mine shaft. I wiped the pistol to eliminate fingerprints after I unloaded it and pitched it down the same mine shaft. The bullets went into a nearby mine shaft. After, I went home and waited until 9pm to begin my phone calls. Frankly I was surprised they’d been able to identify the body using mitochondrial DNA.

The reason I’d done what I’d done related to my killing him, whoever he was. He’d killed Michelle but I wasn’t sure a jury would conclude what I’d done was justified.

I owed TOM big time. I stopped in Grand Island on the way home and set up a shipment of ammo for him and hauled some home for me. I went through the same steps it took to acquire my two silencers and in the process picked up a Steyr AUG with 30 42-round magazines and the 20” (508mm) barrel. I filed a police report to report a break-in and the theft of my firearms. The ATF came by and collected the stamps for the stolen suppressors and took pictures of the cut open gun safe.

I filed an insurance claim to replace the safe and a separate claim to replace the firearms which were insured separately. When it was said and done, my ethics were shot but I wasn’t out much money.

That fall, I received a letter addressed to Professor Paul Grey, Philosophy Department, University of Nebraska, Lincoln, Nebraska without a return address. It said:

Dear Paul,

The wife and I are moving to Arkansas. We’ll live wherever the kid lives. I know nothing. I saw nothing. Thanks for the smokes, etc.

Sgt. Schultz

Hornady had confirmed delivery of the ammo so I assumed he was set. If he got caught with my weapons, he'd be in trouble because I'd reported them stolen and recovered insurance claims on the safe and gun collection. I'd had to go all the way and report the 11-87 stolen too. So, I ended up with a pair of those and fixed the new one up with a poly choke per Jerry.

Jerry always wrote about 2¾" shot shells and I took that to mean he didn't care for the 3". I had plenty of the 2¾" for hunting and shooting clays. My people shooting shells followed TOM's philosophy, the bigger the better. But, I was one to hedge my bets and not only did I buy 200gr +P Gold Dot, I bought Remington Golden Saber HPJ. Heck, I even gave in and bought a Browning Hi-Power Classic with 1 13-round magazine and 6 15-round magazines. I went back to Speer for ammo, buying 124gr Lawman and Gold Dot (+P). The holster I bought was a Monarch from Andrews Custom Leather and had an offside triple magazine pouch and sheath for a Gerber Mk I.

I didn't have a Gerber Mk I. What I had was a boot knife that appeared to be identical to the Mk I. For all I knew, it could have been an Mk I; it fit the sheath like the sheath was made for it. Sharp? You can't imagine. I had 3 diamond sharpening stones in a set of fine, extra-fine and extra-extra-fine (8,000 grit). I'd work the blades on a pair of Arkansas stones and moved to the diamonds after they were sharp. I could stab floating silk with the blade.

I kept abreast of TOM and Jerry's new stories on Jerry's website. They went through a spell, earlier, where they tried to outspend each other. Howard Hughes didn't have that much money. There was an emphasis, almost an urging to get a fallout shelter, personal protective equipment, radiation measurement equipment and so forth. I was tenured and pulling in fair money so it was time to get onboard that ship.

The shelter was built below ground behind the house. It connected to the basement via a 4x6 tunnel. It was filled concrete block construction with pillars to support the I-beams supporting the concrete roof which supported 6' of compacted earth. According to radprocalcent.xls the protection factor was 14.11 halving thicknesses or a protection factor of 17,656. According to The Compass DeRose guide, 2.4" of concrete was a halving thickness and 3.6" of packed dirt was a halving thickness. Therefore, I had 5 halving thickness of concrete and 20 halving thickness of dirt for a total of 25. Twenty halving thicknesses gave a protection factor of ONE MILLION.

Halving-thickness for various materials:

Material	Tenthing Thick-ness	Halving Thick-ness	Weight/square foot at that thickness
lead		0.4"	

concrete		2.4"	138
cement block (solid, porous)			
steel	3.3 in		135 lb
packed dirt	16 in	3.6 in	124 lb
water	24 in		125
lumber or other wood	38 in		111
books			
air		500 feet	

Halvings and protection factors:

Number of halvings	Total protection factor
1	2
2	4
3	8
4	16
5	32
6	64
7	128
8	256
9	512
10	1,024
15	32,768
20	a million
30	a billion

I did some additional research and found:

If the licensee assigns or permits the use of respiratory protection equipment to limit the intake of radioactive material,

(a) The licensee shall use only respiratory protection equipment that is tested and certified by the National Institute for Occupational Safety and Health (NIOSH) except as otherwise noted in this part.

(b) If the licensee wishes to use equipment that has not been tested or certified by NIOSH, or for which there is no schedule for testing or certification, the licensee shall submit an application to the NRC for authorized use of this equipment except as provided in this part. The application must include evidence that the material and performance characteristics of the equipment are capable of providing the proposed degree of protection under anticipated conditions of use. This must be demonstrated either by licensee testing or on the basis of reliable test information.

(c) The licensee shall implement and maintain a respiratory protection program that includes:

(1) Air sampling sufficient to identify the potential hazard, permit proper equipment selection, and estimate doses;

(2) Surveys and bioassays, as necessary, to evaluate actual intakes;

(3) Testing of respirators for operability (user seal check for face sealing devices and functional check for others) immediately prior to each use;

(4) Written procedures regarding –

(i) Monitoring, including air sampling and bioassays;

(ii) Supervision and training of respirator users;

(iii) Fit testing;

(iv) Respirator selection;

(v) Breathing air quality;

(vi) Inventory and control;

(vii) Storage, issuance, maintenance, repair, testing, and quality assurance of respiratory protection equipment;

(viii) Recordkeeping; and

(ix) Limitations on periods of respirator use and relief from respirator use;

(5) Determination by a physician that the individual user is medically fit to use respiratory protection equipment:

(i) Before the initial fitting of a face sealing respirator;

(ii) Before the first field use of non-face sealing respirators, and

(iii) Either every 12 months thereafter, or periodically at a frequency determined by a physician.

(6) Fit testing, with fit factor > 10 times the APF for negative pressure devices, and a fit factor > 500 for any positive pressure, continuous flow, and pressure-demand devices, before the first field use of tight fitting, face-sealing respirators and periodically thereafter at a frequency not to exceed 1 year. Fit testing must be performed with the facepiece operating in the negative pressure mode.

(d) The licensee shall advise each respirator user that the user may leave the area at any time for relief from respirator use in the event of equipment malfunction, physical or psychological distress, procedural or communication failure, significant deterioration of operating conditions, or any other conditions that might require such relief.

(e) The licensee shall also consider limitations appropriate to the type and mode of use. When selecting respiratory devices the licensee shall provide for vision correction, adequate communication, low temperature work environments, and the concurrent use of other safety or radiological protection equipment. The licensee shall use equipment in such a way as not to interfere with the proper operation of the respirator.

(f) Standby rescue persons are required whenever one-piece atmosphere-supplying suits, or any combination of supplied air respiratory protection device and personnel protective equipment are used from which an unaided individual would have difficulty extricating himself or herself. The standby persons must be equipped with respiratory protection devices or other apparatus appropriate for the potential hazards. The standby rescue persons shall observe or otherwise maintain continuous communication with the workers (visual, voice, signal line, telephone, radio, or other suitable means), and be immediately available to assist them in case of a failure of the air supply or for any other reason that requires relief from distress. A sufficient number of standby rescue persons must be immediately available to assist all users of this type of equipment and to provide effective emergency rescue if needed.

(g) Atmosphere-supplying respirators must be supplied with respirable air of grade D quality or better as defined by the Compressed Gas Association in publication G-7.1, "Commodity Specification for Air," 1997 and included in the regulations of the Occupational Safety and Health Administration (29 CFR 1910.134(i)(1)(ii)(A) through (E). Grade D quality air criteria include –

(1) Oxygen content (v/v) of 19.5-23.5%;

(2) Hydrocarbon (condensed) content of 5 milligrams per cubic meter of air or less;

(3) Carbon monoxide (CO) content of 10 ppm or less;

(4) Carbon dioxide content of 1,000 ppm or less; and

(5) Lack of noticeable odor.

(h) The licensee shall ensure that no objects, materials or substances, such as facial hair, or any conditions that interfere with the face–facepiece seal or valve function, and that are under the control of the respirator wearer, are present between the skin of the wearer's face and the sealing surface of a tight-fitting respirator facepiece.

(i) In estimating the dose to individuals from intake of airborne radioactive materials, the concentration of radioactive material in the air that is inhaled when respirators are worn is initially assumed to be the ambient concentration in air without respiratory protection, divided by the assigned protection factor. If the dose is later found to be greater than the estimated dose, the corrected value must be used. If the dose is later found to be less than the estimated dose, the corrected value may be used.

I also found the following about respirators:

	Operating mode	Assigned Protection Factors
I. Air Purifying Respirators [Particulate only]:		
Filtering facepiece disposable	Negative Pressure	
Facepiece, half	Negative Pressure	10
Facepiece, full	Negative Pressure	100
Facepiece, half	Powered air-purifying respirators	50
Facepiece, full	Powered air-purifying respirators	1000
Helmet/hood	Powered air-purifying respirators	1000
Facepiece, loose-fitting	Powered air-purifying respirators	25
II. Atmosphere supplying respirators [particulate, gases and vapors]:		
1. Air-line respirator:		
Facepiece, half	Demand	10
Facepiece, half	Continuous Flow	50
Facepiece, half	Pressure Demand	50
Facepiece, full	Demand	100

Facepiece, full	Continuous Flow	1000
Facepiece, full	Pressure Demand	1000
Helmet/hood	Continuous Flow	1000
Facepiece, loose-fitting	Continuous Flow	25
Suit	Continuous Flow	
2. Self-contained breathing Apparatus (SCBA):		
Facepiece, full	Demand	100
Facepiece, full	Pressure Demand	10,000
Facepiece, full	Demand, Recirculating	100
Facepiece, full	Positive Pressure Re-circulating	10,000
III. Combination Respirators:		
Any combination of air-purifying and atmosphere-supplying respirators	Assigned protection factor for type and mode of operation as listed above.	

These assigned protection factors apply only in a respiratory protection program that meets the requirements of this Part. They are applicable only to airborne radiological hazards and may not be appropriate to circumstances when chemical or other respiratory hazards exist instead of, or in addition to, radioactive hazards. Selection and use of respirators for such circumstances must also comply with Department of Labor regulations.

Radioactive contaminants for which the concentration values in Table 1, Column 3 of Appendix B to Part 20 are based on internal dose due to inhalation may, in addition, present external exposure hazards at higher concentrations. Under these circumstances, limitations on occupancy may have to be governed by external dose limits.

Air purifying respirators with APF <100 must be equipped with particulate filters that are at least 95 percent efficient. Air purifying respirators with APF = 100 must be equipped with particulate filters that are at least 99 percent efficient. Air purifying respirators with APFs >100 must be equipped with particulate filters that are at least 99.97 percent efficient.

The licensee may apply to the Commission for the use of an APF greater than 1 for sorbent cartridges as protection against airborne radioactive gases and vapors (e.g., radioiodine).

Licensees may permit individuals to use this type of respirator who have not been medically screened or fit tested on the device provided that no credit be taken for their use in estimating intake or dose. It is also recognized that it is difficult to perform an effective

positive or negative pressure pre-use user seal check on this type of device. All other respiratory protection program requirements listed in § 20.1703 apply. An assigned protection factor has not been assigned for these devices. However, an APF equal to 10 may be used if the licensee can demonstrate a fit factor of at least 100 by use of a validated or evaluated, qualitative or quantitative fit test.

Under-chin type only. No distinction is made in this Appendix between elastomeric half-masks with replaceable cartridges and those designed with the filter medium as an integral part of the facepiece (e.g., disposable or reusable disposable). Both types are acceptable so long as the seal area of the latter contains some substantial type of seal-enhancing material such as rubber or plastic, the two or more suspension straps are adjustable, the filter medium is at least 95 percent efficient and all other requirements of this Part are met.

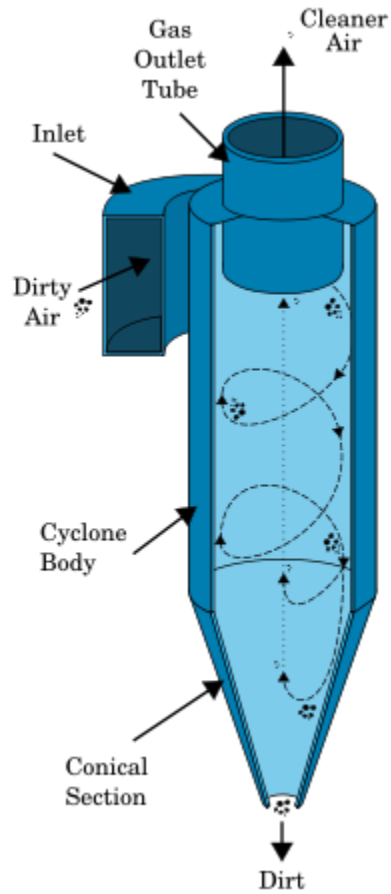
The assigned protection factors for gases and vapors are not applicable to radioactive contaminants that present an absorption or submersion hazard. For tritium oxide vapor, approximately one-third of the intake occurs by absorption through the skin so that an overall protection factor of 3 is appropriate when atmosphere-supplying respirators are used to protect against tritium oxide. Exposure to radioactive noble gases is not considered a significant respiratory hazard, and protective actions for these contaminants should be based on external (submersion) dose considerations.

No NIOSH approval schedule is currently available for atmosphere supplying suits. This equipment may be used in an acceptable respiratory protection program as long as all the other minimum program requirements, with the exception of fit testing, are met (i.e., § 20.1703).

The licensee should implement institutional controls to assure that these devices are not used in areas immediately dangerous to life or health (IDLH).

This type of respirator may be used as an emergency device in unknown concentrations for protection against inhalation hazards. External radiation hazards and other limitations to permitted exposure such as skin absorption shall be taken into account in these circumstances. This device may not be used by any individual who experiences perceptible outward leakage of breathing gas while wearing the device.

Frankly I was more worried about Yellowstone than World War III. So to be on the safe side, I made sure the air intakes were in a protected structure well above ground level. I used 2 sets of 6" steel pipes, the primary and backup. The intakes were fitted with cyclonic air filters, something Jerry mentioned once or twice. I found a picture on Wiki and copied it in case anyone reading this story doesn't know what a cyclonic air filter is. Why would I do that? Haven't you read *Just in Case?* Haven't you read *What If?* Their combined total of published stories was in excess of 200 and increasing.



The dirt in the picture would be the fallout and if it worked as advertised, no radiation would enter the Safe Cell. The Safe Cell filters gases and biologics. The cyclonic filter was mounted as pictured, meaning I had pipes running every which way to turn the clean air horizontal and the dirty air intake vertical.



That's from Wiki too. I stuck it in because I thought it would keep them on your mind. I swear they feed each other. Jerry has the longest list of disasters and TOM claims they happen in three's. If the first one kills you, the other two don't really matter.

I only had one higher capacity Safe Cell because of the expense but I had spare filters and two blast doors plus one blast hatch. The blast hatch was at the end of the escape tunnel which both of them seemed to favor.

When the shelter was finished up and covered over, it was a thing to behold, inside. Of course I didn't show it to anyone because loose lips sink ships. The only outward appearance there was that I'd changed my path in life was the US Tower crank up/down fold over antenna tower with one of everything. And I only had a ten year supply of food not counting the Mountain House pouches and Hungry Man MREs. As soon as I had enough saved up, I planned to buy another five year supply from Emergency Essentials and follow that up with another five year supply from Walton. Check that, I'll order from Walton first and save up for EE. By the time I have enough saved up for EE, I should receive the Walton order.

I tried out one case of the Hungry Man MREs. They were good and enough for 2 meals. I ordered more from Nitro-pak along with pouches EE didn't have on hand. A very good commercial GORP/Mountain Trail Mix was available at Wal-Mart and I bought several packages and repacked it into single serving Ziploc vacuum bags. I ignored the *best by date*. Rudy and I kept up the fuller training schedule during the summer months and the lighter schedule during the school year.

187PC – Chapter 3

Before Michelle was murdered, we agreed that a war over Iran was only moments away. Israel didn't attack them and the president chose not to get the US involved. It was 2018 and I was getting a little gray in my temples. I shouldn't have gray hair, I'm only 31. It was probably my conscience over killing that dirt bag and dropping him down a mineshaft after burying my wife.

Michelle might have gone to Wal-Mart in Lancaster to buy something only to learn they were out but the Palmdale store on 47th Street East had it in stock. All that meant was I was wrong to bury her in the desert, not that I was wrong for getting revenge against the guy. And, as I said, there was a question of whether a jury would consider my actions justified homicide.

The summer of 2019 I planted a garden for the first time ever. I just planted things I liked. The startup process was expensive. I got wide mouth pints from Canning Pantry, 2 30-quart All American canners from the same source along with a flaker for rolled oats. I added a few cases of wide mouth quarts in case I wanted to can beef stew. I bought Tattler lids for second and subsequent use and a Diamant 525 grinder from Lehman's. I don't want to sound sexist, but this was women's work because they understood the process far better than I ever would.

I added a small upright freezer to the pantry and a large upright freezer to the shelter. I bought a side of Black Angus and had it wrapped in single serving packages; except for the roasts, of course. The locker plant had a source for pork so I added a hog and thick sliced bacon from the grocery store. Whenever the grocery store had whole chickens on sale I buy several and seal a half chicken in Seal-a-meal package. When they had boneless chicken breasts on sale, I'd buy the limit and can them, 2 per pint. I also cut up some of the larger beef roasts and canned them.

Other meats like tuna, canned beef, canned chicken, SPAM, corned beef hash and so forth took up two storage shelves and were rotated. While I wasn't a great cook, I managed to avoid poisoning myself. It was all part of the double buying process the writers suggested.

Getting back to the subject of equipment, I bought the radiation equipment for the shelter from Arrow Tech with 6 high range and 6 low range dosimeters. I had a portable detector with a 1,000 Rad range and remote detectors with 4, 1,000 and 10,000 Rad ranges. Despite the MSA Millennium not being the latest issue gas mask, I chose those with 2 cases of filters for each of the 6 masks. I added Tychem SL – High Performance Level B NSR Chemical Suits, BATA HazMax 11" Overboots, chemical suit tape and 20 pairs of S, M and L Silver Shield Gloves/Glove Liners.

The amateur communications gear was all ICOM including the transceiver, scanning receiver, mobile radios and handhelds. The CB base station was a Galaxy and the CB mobiles and portables Cobra. The business band radios were Motorola. TOM liked

Kenwood and Jerry liked Yaesu amateur equipment. I did take TOM's suggestions about the beam antennas and verticals. Since it was simple memorization, I had an Extra Class license. I don't really know why but I bought 3 full sets of spare mobile and portable radios.

Stay tuned for an announcement from The White House...

My fellow Americans,

Two months ago, astronomers took note of a large asteroid in the far reaches of space that was apparently headed towards the earth. With the passage of time and additional observations, they have determined that the object will pass between the Earth and Moon.

During my morning briefing, I was informed that it could pass within 30,000 miles of our planet. It is expected to arrive in 60 days. Given the mass of the object, the combined resources of the most powerful nations on this planet are unable to influence the path of the object.

The course of the object, as plotted, make a water strike possible. It should strike in the Pacific Ocean northwest of the Hawaiian Islands. With the passage of time, the calculations will continue to be refined.

We have ample time to prepare for the event. I have issued an Executive Order imposing temporary price controls and purchase limits to no more than double the amount of food and supplies a family would consume during the next 60 days. The price controls and limits will expire in 61 days.

At the first sign of unrest resulting from this announcement, I will declare an Insurrection in progress and utilize the full force of the American Armed Forces to maintain Law and Order. Looters will be shot on sight and persons attempting to circumvent the purchase limits will be subject to arrest and detainment until the event occurs.

Believe me when I tell you that an MRE really is a Meal Refused by Ethiopians. A single meal when you are hungry might taste good, but you really don't want to try and live on them. Detainees will be fed MREs.

I ask that all persons hearing this announcement join me in a prayer to Almighty God to spare our planet.

Thank you. God bless the USA and God bless the planet Earth.

It's going to miss by 30,000 miles but could strike the Pacific Ocean. Make up my mind, would you? Given my stores of food, I really didn't need to buy anything. I decided to go

for the types of supplies that should be low on peoples' lists. You know stuffed green olives, exotic coffees I enjoyed, tea, Swiss Miss hot chocolate, etc. I would limit myself to less than a person would typically purchase and hit all the stores, in turn. I was sure my purchases would go unnoticed; except for the Buyer's Clubs like Sam's and Costco who could track your purchases by your member ID. On the other hand, the Buyer's Clubs sold in bulk so a 50 pound bag of rice or a 25 pound bag of beans wouldn't be excessive. They sold to restaurants and cafés.

The mainstream media was in a feeding frenzy with a story of this magnitude. Each evening they'd have a panel of different experts who could only agree that the sun rose in the east, maybe. The closer we got to the event, the fewer the number of students in our classes. The University of Nebraska, Lincoln was taking on the appearance of a ghost town.

That gave Rudy and me time to get back in shape, just in case. My fellow Professors changed with the passage of time, moving to other Universities, taking promotions to heads of departments and so forth. Even my shooting buddy John was in Iowa City, working for the University of Iowa.

John's replacement was a full Professor and her name was Sarah McCracken. She was one year my junior and soon joined the remains of our clay pigeon shooting group and long distance shooting group. Her rifle was an Accuracy International AW-50 bolt action rifle fitted with a Schmidt & Bender MILITARY MKII 5-25x56 0.1 MIL RAD parallax, illumination, double turn telescopic sight and a Jet titanium suppressor. I was in love with her rifle at first sight.

Sarah said the rifle was typically fitted with the Schmidt & Bender 3-12x50 PM II with AI Mil Dot reticle, 0.2 MRad clicks and elevation to 1500 m and laser protection. Night vision device sights such as the Simrad KN series or Hensoldt NSV 80 can also be fitted, but she had the AN/PVS-27 MUNS.

Sarah was single and not hard on the eyes so after a month of shooting together I showed her my shelter. I had already invited Rudy and his wife Dawn and two kids, Tammy and Thomas to use the shelter. It had 3 bedrooms and no dorms. The water came from a new well I had drilled and the septic drained to a below floor level tank and was pumped to my septic tank. Access to the tanks was manhole covers.

The generator was an Onan QD 12.5 which I selected because of the 100+ amp output, low sound level and extremely low fuel consumption of 0.1gph at no load to 0.48gph at half load to 1.2gph at full load. The diesel tank held 20,000 gallons of B-100 with PRI-D and an anti-gel.

"Nice. Where do you sleep?"

“The bedroom on your right is mine. The one in the center has twin beds and is for Rudy and Dawn’s two children, Tammy and Thomas, and the one on the left is for Rudy and Dawn.”

“Does yours have twin beds?”

“All three have twin beds.”

“So if push came to shove, we’d sleep in the same room but not the same bed?”

“We hardly know each other. I might share a bed with you, but it would be tough. You’re very attractive.”

“You’re not too bad yourself. You’re buff, shoot very well and are into prepping. Have you ever been married?”

“I’m a widower. My wife Michelle was murdered.”

“When was that?”

“November 6, 2012. It was Election Day and the day Obama won his second term.”

“It was a bad day all around.”

“It most certainly was. She just up and disappeared and they didn’t find her remains until 2017.”

“What about the person who killed her?”

“Inconclusive. They got some partial fingerprints but not enough to identify whoever it was. My fingerprints were on her car in various places, of course, and they took my prints for the purpose of elimination.”

“Were you part of the gun culture back then?”

“I didn’t get involved until I moved to Nebraska.”

“You seem to have made up for lost time.”

“I did do that. While I was in California dealing with burying her remains, someone broke into my home, cut open my gun safe and stole all of my firearms. I was lucky I had them insured separately or I’d have been out 50 grand. Most homeowner policies don’t cover firearms.”

“Why do you have 2 11-87s?”

“The first had the Rem chokes in both the long barrel and deer barrel. I decided I wanted a poly choke based on the preference of one of my favorite authors and bought one.”

“Jerry D Young.”

“That’s him. The strangest thing was I met TOM on that trip. He and his dog Elizabeth found Michelle’s remains.”

“I thought he only left home to go to doctor appointments.”

“That’s what he says. In this case, he wanted to walk his dog and rode to Wal-Mart with Sharon. He moved, you know, to Arkansas. They’re living wherever his son lives.”

“And I presume he has all the guns he always wanted.”

“I suppose that’s possible.”

I had to remind myself that loose lips sink ships and I didn’t want to open a can of worms. I ended up offering Sarah a place in my shelter, no strings. She brought her preps, excluding her bug out bag, and placed them in the shelter. Her bugout bag was a Kifaru MMR with a Navigator as a patrol pack.

We were equipped similarly with the primary differences being choice of brands. Our sleeping bags were different brands with the same features and our tents were identical. Sarah had climbing equipment while I had none; there aren’t many mountains in Nebraska. She claimed she’d taken classes and learned rope work and climbing techniques, just in case. I told her I read that. She said she didn’t like the ending and I pointed out that he said they never got married and didn’t really disclose whether they’d gotten together.

Her vehicle was a Subaru Outback with the 250HP H6 engine. She sprang for a 500-gallon gasoline tank, had it filled with 87 octane and PRI-G. We were getting along well and I didn’t want to push the relationship beyond where she was comfortable. As the clock ticked down on the imminent arrival of the asteroid, we took to spending more time at my house. It was a huge old 4 bedroom home with an attic and basement and heated by fuel oil.

I had upgraded the 300-gallon fuel oil tank in the basement to 1,000-gallons and it was to my way of thinking at the time, a little bit like living above a time bomb. It was one of my last minute preps, done the day after the announcement from The White House. When I ordered the tank, it was my understanding that they would replace the old tank with the new tank. Their understanding was that I wanted a new outside 1,000-gallon tank because no one would be stupid enough to live over a time bomb. So, I had 1,300-gallons of fuel oil, 300 in the basement and 1,000 outside the house, but close. It was located so the fill pipes were as close as possible.

We made arrangements to have the biodiesel tank and the fuel oil tanks topped off as close to the event as possible. The suppliers only agreed if we would prepay the deliveries. I had the biodiesel topped off immediately and prepaid 300-gallons of fuel oil. Sarah had the gasoline topped off and began buying gas from a service station in Lincoln. I bought 2-gallons of PRI-G and 40-gallons of PRI-D and an equal amount of anti-gel. We had our ammo reloaded and made a trip to Grand Island. I seriously doubt they'd have filled the order had I not made previous purchases.

And, to top it off, I got a shipment from Arkansas. It was 20 cans of Mk 211 MP, Raufoss and the shipper was Sergeant Schultz. The enclosed note said that his son had happened onto something he and I could use so he sent half. I really wonder what UPS would have done if they knew they were shipping explosive ammo. But, he clearly told them what it was: Ammo, .50BMG. I'd received ammo worth about 18 grand plus shipping. He'd paid me back in spades.

The immediate presence of the National Guard and active duty Armed Forces prevented the activities the president intended to prevent. But as the arrival day came closer, worldwide unrest grew. To complicate matters, there was uncertainty within the scientific community about the effect of the Earth's gravity would have on the asteroid. One group suggested that the mass of the Earth would draw the asteroid closer and the other group maintained that the mass of the object was so slight the Earth's affect would be minimal. I asked a colleague to explain:

"Gravitation, or gravity, is a natural phenomenon by which physical bodies attract with a force proportional to their masses. Gravitation is most familiar as the agent that gives weight to objects with mass and causes them to fall to the ground when dropped. Gravitation causes dispersed matter to coalesce, and coalesced matter to remain intact, thus accounting for the existence of the Earth, the Sun, and most of the macroscopic objects in the universe.

"The equivalence principle, explored by a succession of researchers including Galileo, Loránd Eötvös, and Einstein, expresses the idea that all objects fall in the same way. The simplest way to test the weak equivalence principle is to drop two objects of different masses or compositions in a vacuum, and see if they hit the ground at the same time. These experiments demonstrate that all objects fall at the same rate when friction (including air resistance) is negligible. More sophisticated tests use a torsion balance of a type invented by Eötvös. Satellite experiments, for example STEP, are planned for more accurate experiments in space.

"Formulations of the equivalence principle include:

- The weak equivalence principle: The trajectory of a point mass in a gravitational field depends only on its initial position and velocity, and is independent of its composition.
- The Einsteinian equivalence principle: The outcome of any local non-gravitational experiment in a freely falling laboratory is independent of the velocity of the laboratory and its location in spacetime.

- The strong equivalence principle requiring both of the above.

The equivalence principle can be used to make physical deductions about the gravitational constant, the geometrical nature of gravity, the possibility of a fifth force, and the validity of concepts such as general relativity and Brans-Dicke theory.”

My colleague explained further:

“Every planetary body, including the Earth, is surrounded by its own gravitational field, which exerts an attractive force on all objects. Assuming a spherically symmetrical planet, the strength of this field at any given point is proportional to the planetary body's mass and inversely proportional to the square of the distance from the center of the body.

“The strength of the gravitational field is numerically equal to the acceleration of objects under its influence, and its value at the Earth's surface, denoted g , is approximately expressed below as the standard average.

$$g = 9.81 \text{ m/s}^2 = 32.2 \text{ ft/s}^2$$

“This means that, ignoring air resistance, an object falling freely near the Earth's surface increases its velocity by 9.81 m/s (32.2 ft/s or 22 mph) for each second of its descent. Thus, an object starting from rest will attain a velocity of 9.81 m/s (32.2 ft/s) after one second, 19.62 m/s (64.4 ft/s) after two seconds, and so on, adding 9.81 m/s (32.2 ft/s) to each resulting velocity. Also, again ignoring air resistance, any and all objects, when dropped from the same height, will hit the ground at the same time.

“According to Newton's 3rd Law, the Earth itself experiences a force equal in magnitude and opposite in direction to that which it exerts on a falling object. This means that the Earth also accelerates towards the object until they collide. Because the mass of the Earth is huge, however, the acceleration imparted to the Earth by this opposite force is negligible in comparison to the object's. If the object doesn't bounce after it has collided with the Earth, each of them then exerts a repulsive contact force on the other which effectively balances the attractive force of gravity and prevents further acceleration.”

He lost me at $E=mc^2$. Sarah taught Economics. Any way one sliced it, the mass of the Earth would attract the asteroid. That wasn't the question. The question and the reason for the two groups of thought were how much? The answer to the question depended on the mass of the object

In *3 Time Jinx*, Jerry had Nibiru skimming the surface of the Pacific. Nibiru hadn't come or maybe this was it and it was late. Then again the arrival date wasn't December 21. But the Mayan calendar was so... accurate.

It missed. Still, it did have an effect, Yellowstone erupted. Sarah and I were sitting in the living room holding each other and our breaths. We knew it wouldn't hit a full two minutes ahead of time. Sheppard Smith was wrapping up Fox's coverage, saying, *and there you have it folks, it missed* when the ground began to shake something awful. I'd been through a few earthquakes in California and this felt very familiar.

Distance between Jackson, Wyoming, United States and Lincoln, Nebraska, United States, as the crow flies:

745 miles (1199 km) (647 nautical miles)

Initial heading from Jackson to Lincoln:

east (99.4 degrees)

Initial heading from Lincoln to Jackson:

west-northwest (288.9 degrees)

The speed of sound is the distance travelled during a unit of time by a sound wave propagating through an elastic medium. In dry air at 20 °C (68 °F), the speed of sound is 343.2 meters per second (1,126 ft/s). This is 1,236 kilometers per hour (768 mph), or about one kilometer in three seconds or approximately one mile in five seconds. We were left with the impression we had experienced an earthquake for about an hour when the loudest sound I ever heard filled the house.

"Yellowstone!"

"What?"

"Yellowstone!"

Twenty minutes later Rudy, Dawn, Tammy and Thomas rolled in pulling his preloaded trailer. I could see where they'd quickly loaded their other things in the pickup box and the kids had the firearms across their laps in the back seat.

"Yellowstone?"

"We think so. The explosion took out most of the media outlets in the area and main-stream media hasn't reported anything yet. I'm sure the government knows because they have satellites."

"You didn't turn on your weather radio, did you?"

"No, why?"

“They announced a volcano warning and to prepare for volcanic ash.”

“The rechargeable batteries are dead and I was too lazy to get some out of the cabinet in the shelter. It’s an Oregon Scientific WR602 and uses 3 rechargeable AA batteries.”

“How many do you have?”

“Two 100pc packs of Tenergy Premium AA 2500mAh NiMH Rechargeable Batteries and 12 two packs of Energizer L91BP-2 Ultimate Lithium AA Batteries.”

“What don’t you have?”

“Hand grenades and rockets.”

“Got you covered. You have Raufoss?”

“Recent acquisition; gift from A Friend.”

“Anything in full-auto?”

“One AUG with 30 42-round magazines and the 20” barrel.”

“And I have an HK-416,” Sarah announced.

“Any 40mm?”

“I don’t.”

“I have 2 launchers, no grenades.”

“Ammo?”

“Enough. Are we expecting trouble beyond the ashfall?”

“Very likely. I know how well you shoot. What about Sarah?”

“Better.”

“Let’s get this stuff into your basement and as much in the shelter as we can fit.”

“How did you manage to get here so quickly?”

“We preloaded the trailer and had the rest set out to load in the pickup because of the asteroid. It might have missed but I’m not sure that the alternative was a better choice.”

“Now, how are you fixed on weapons and ammo?”

“I have your friend John’s M82A1 with the Nightforce scope, MUNS and Barrett suppressor; both an HK417 and HK416; an M1A Super Match with leather cheek piece, bipod, suppressor, Nightforce riflescope and MUNS. My handguns are a P-14 and a Warthog. The family is equipped with SR-556s and Browning Hi-Powers. We’re in good shape on everything except .50 caliber ammo.”

“Radios?”

“Nope.”

“I have 3 extra sets of mobiles and portables. While I have a Safe Cell, I have cyclonic air filters between the air-intake and filter-intake. Those should keep the ash out and the Safe Cell filters should remove any harmful gasses.”

“Uh, you and Sarah will be sleeping together?”

“Same room, different beds. All 3 bedrooms are fitted with twins.”

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“How long will it take for the ash to arrive?”

“It’s 745 miles. With a wind speed of 15mph, around 50 hours and with a wind speed of 10mph, 74 hours.”

“Between 2 and 3 days?”

“That’s right, why?”

“We could try to get more food supplies.”

“Anything in particular?”

“Cigarettes, bath tissue, pads and or tampons, condoms, coffee and all the staples they’d allow us to purchase,” she replied.

“Meat would be high on my list but it would have to come from Costco and or Sam’s Club.”

“Split up and buy all we can?”

“We could. I do have wide mouth quart jars and additional Tattler lids to replace the lids we’d use up.”

“Bread pans?”

“The ones for 24oz loaves. They’re strapped together, 3 pans per strap and I have two straps. If we can get bleached flour, we should use that up before we have to grind our own. I have supplements for the flour.

“Anything else?”

“Butter, cinnamon, powdered sugar and vanilla for frosted cinnamon rolls. My extra cash is in the gun safe, I’ll get it.”

“Ok, how are we going to split up?”

“Rudy and Dawn will hit Sam’s Club and the grocery stores in that area. You and I will hit Costco and the stores in that area. Buy until we run out of money, they run out of food or cut us off.

“Everyone should plan on carrying, concealed weapons permit or not. We should refill any empty gas cans we have and buy more if they’re available. Don’t worry; we have plenty of PRI-G, PRI-D and anti-gel.”

“And, we can do this for two days?”

“We’ll probably run out of money before that.”

“I doubt that.”

“Well, I’ll run out of money before that.”

“Now, that’s possible.”

I can’t say that I’d come full circle as that would mean I was still a liberal terrified of firearms and totally dependent of the government to save my bacon. It was half circle and I had become almost the exact opposite of what I’d been in college and grad school. Maybe the asteroid missed us, but the thing I’d always worried about since getting into the gun culture and eventually prepping had come true. There was no way to really estimate the long term effects, regardless of what BBC had suggested.

Sarah had a 5 year food supply purchased from Emergency Essentials. It was supplemented with paper products, coffee, tea, oil, and trade items like cigarettes, cloth, sewing notions and extra clothes. Most of my casual wear was slacks, shirts and sport coats. I needed to shop for more appropriate clothing and was thinking about jeans, blue work shirts, extra underwear, socks, good boots and a hat, probably something wide brimmed.

As hard as we tried, we didn’t run out of money. Close, but that only counts in dancing, horseshoes and hand grenades. I had 2 pairs of boots, one pair of work boots and one pair of very tight western boots plus 3 hats, a baseball cap, a wide brimmed straw hat and a wide brimmed gray western dress felt hat, the only one they had in my size. I had overlooked a jacket and coat and got a jeans jacket and blanket lined denim chore coat. I also bought 6 pairs of leather work gloves. Sarah shopped separately and I presumed she bought additional underwear. She clearly had a lot more money than I did.

By shopping around as we chose to do, we were able to buy more than we could have bought by shopping a single store or even two. Rudy emphasized trade goods like cigarettes and booze. Dawn concentrated on the food and we concentrated on the clothing, meat, cigarettes, first aid supplies, etc.

“How many canners do you have?”

“Two, both 30 quart; each will can 14 quarts per batch.”

“Get the quart jars and start cutting up the meat. Cut the pieces the size we’ll need for stews and similar dishes.”

“What about the ground beef?”

“Dawn and I will roll meatballs.”

“We only bought 3 cases of pasta sauce.”

“I have dried tomato powder, we can get by.”

We worked late into the night and finished canning the beef around 2am. Sarah got her shower and dressed in a flannel nightgown. Dawn went next, Rudy was third and I finished up around three. Man, I was tired.

“Paul, it’s time to get up.”

“What time is it?”

“It’s 8:15. You need to get dressed and we should head out to get whatever is still available. You mentioned pasta sauce and I put that on the list along with some spices I think we can use but couldn’t find. Oh, the power cut out during the night and we’re on generator power.”

“Darn, I hoped the power would stay up longer.”

“It didn’t. Shake a leg; your breakfast is getting cold.”

We swapped with Rudy and Dawn, going to Sam’s while they went to Costco. We got the spices, pasta sauce, pasta and very little meat. The shelves in the grocery stores were nearly completely bare. We went to Walgreens getting what we could and returned home. Rudy and Dawn had done fair on meat, bacon and butter and had 1 100-pound bag of flour.

Tammy said the biodiesel guy called and wanted to talk to me. I called him and learned he had a tanker with 5,000-gallons of biodiesel. He could leave the tanker and was looking for cash to get to Georgia where they had family. He wanted \$1.50 per gallon. I mentioned it to Sarah and she went into the bedroom. She returned a few minutes later with \$7,500 in cash.

“That will leave me with \$12,500 in cash and all my gold and silver. I didn’t bring it up, but I’m a widow. That no good, lowlife, SOB I was married to vanished the same night your wife disappeared. Some kids found his body in a mine shaft about a year later. They also found his Hi-Point C-9 pistol. I always figured he’d end up dead and had him insured to the hilt. That paid for the balance of my education and a hefty chunk of gold and silver. I wish I knew who did it. I’d plant a big wet, sloppy on him or her.”

“The cops didn’t suspect you?”

“I was working at a polling place and we didn’t get out until late. After we closed up, I went home, got a shower and went to bed. I never knew from one night to the next when he’d show up. When he’d been missing 48 hours, I called the Palmdale sheriff’s station and filled a missing person report over the phone. I was trying to decide whether or not to renew the policy when his body was found and identified. My insurance agent said I didn’t need to renew since the policy had been in force at the time of his death. I collected \$500 thousand.”

I wasn’t about to collect that wet sloppy; at least not for killing her husband. I did agree with the sentiment, he had it coming. If we ended up married by chance or design, I could just see Sergeant Hal Galloway showing up and saying, *small world, huh?* I later learned that Sarah hadn’t talked to a Sergeant Galloway. In fact, her only contact with the sheriff’s department had been the phone call and a brief interview when his body had been found. She had an air tight alibi, verified when she filed the missing person report.

You have no idea of the scope of the eruption since the prevailing winds are westerly and you’re located east-southeast of Yellowstone. Plus any number of volcanoes in the Cascade Range could have been affected similarly putting even more ash in the air. What was that story where Valles, Yellowstone and Long Valley erupted at once, *True Terror?* That’s right the Tesla Earthquake Machine that you had to look up on Wiki to learn what it was... a mechanical oscillator powered by steam. The Mythbusters television program made a small machine based on a similar principal, but driven by electricity rather than steam, to test the claimed earthquake effect; it produced vibrations in a large structure that could be felt hundreds of feet away, but no significant shaking, and they judged the effect to be a busted myth. The vibration effect achieved in the experiment may be similar to what the earlier mentioned 1898 reporters experienced. Myth busted, or not?

On the other hand, we had only felt one earthquake-like sensation so perhaps Yellowstone was the only caldera to experience an explosive eruption. Discussion concerning Yellowstone ranged from the next one, if it happens, will be the smallest to the next one, if it happens, will be the largest by far and could equal the sum of the previous 3 eruptions, putting out more than 3,730km³ of ash or 895mi³. That much ash could reach to the east coast. But, it was only speculation. Jacob Lowenstern didn’t believe Yellowstone would erupt again, period (he was 48 in 2012; graduated Dartmouth College in 1986, one year studying in Italy, PhD Stanford 1992; therefore PhD at age 28, BA at 22 so it fits; he may get his first razor for Christmas this year).

But back to what’s really on my mind, Sarah. The attraction certainly seemed mutual and I began thinking about possibility of getting married a second time. There would be no fear for her safety, she was a far better shot than I was and had her own concealed carry permit. The subject of her handguns hadn’t come up so I asked.

“Glock. I have a model 21 and a model 30. I have a paddle holster and a Galco bag for the 21. If I’m wearing a dress, I can carry the 30 in a thigh holster, but I hate it. I also

have an ankle holster for the 30 for when I'm wearing jeans or slacks. I like that much better and as a side benefit I have a double mag pouch for the other ankle that holds 2 21 mags."

"Gun rubs your other thigh when you wear the thigh holster?"

"I hope to tell you. Plus I have to carry the spare magazines in my purse."

"Paul! We're getting a signal on the weather radio. I think it may be Omaha."

"Turn up the volume so we can all hear."

...ntinues to erupt and the current estimate put the ash volume at 2,000km³. Satellites have been repositioned in their orbits, according to NOAA, to provide extended coverage of the ash fall.

Scientists believe that Yellowstone was under pressure from the magma pool and the gravitational attraction caused by the near passage of the asteroid weakened the overburden allowing the explosive eruption. The blast was heard as far east as Cleveland, Ohio and Knoxville, Tennessee.

In Nebraska, ash has begun falling east of Grand Island and will reach the capital before the expected sunset. We've been advised that the ash fall will continue unabated until Yellowstone collapses in a new caldera. With the travel time of the ash being subject to the speed and direction of the wind, the heavy ash fall should slow significantly after the collapse.

Small amounts of ash will continue to filter out of the atmosphere over the coming weeks. Only heavy rains, deemed unlikely, or snow will pull the particles to the ground. The finest ash, which measures 200 micrometers or smaller and composed of rock and glass particles, is extremely abrasive. Anyone who cannot avoid being in the ash should wear particulate filters rated N or P-100 and eye protection

Our next broadcast will be on the hour.

So, what do you do after the ash starts falling? You watch DVDs until you know the dialogue by heart. You read up on gardening. You get to know each other better... eventually, very much better. You risk a peek to see what's happening outside and it's as dark at noon as it usually is just before dawn. So you wait... and wonder. You have all kinds of thoughts running through your brain. Did Tom and Jerry make it? Are we going to make it? What's the world going to be like when we emerge from our cocoon? Do we have enough fuel, food and everything we need to get through this?

You learn some facts you never thought you would 34C-24-35; 3" shorter than me and only 117 pounds... bone showing slender. (I'm 6'0".) She's an excellent cook and can do things Italian that would shame Mario Batali. Her rich chestnut brown mid-back

length hair matches her hazel eyes. Nightly brushing brings out the oils and makes it shine. You don't discuss Philosophy and lead her from discussions of Economics. How important will those subjects be in the aftermath of the eruption?

It occurs to you that TOM claims bad things happen in three's. Was the asteroid #1 or was Yellowstone #1. You conclude that but for the asteroid, Yellowstone might not have erupted so you make the asteroid #1 and Yellowstone #2. You realize from all your reading that the US, if not the entire northern hemisphere is in for a volcanic winter; the severity of which will be determined by the total volume of ash.

There hasn't been a disaster of this magnitude for centuries; maybe as far back as the Little Ice Age which has recently been attributed to a solar minimum. The ash is likely to circumnavigate the globe much the way that the radiation from Fukushima Daiichi has continued to spread. In Units 1, 2 and 3 fresh water is being continuously injected both via the feed water system lines and the fire extinguishers lines into the reactor pressure vessel; temperatures and pressures remain stable.

To protect against potential damage as a result of future earthquakes, TEPCO started work on 9 May to install a supporting structure for the floor of the spent fuel pool of Unit 4. TEPCO has formulated the hypothesis that the damage to the Unit 4 building could have been caused by hydrogen generated at Unit 3 that flowed into Unit 4.

Fresh water is being injected as necessary into the spent fuel pools of Units 1 - 4. Water supply from concrete pump trucks is being gradually replaced by the Fuel Pool Cooling and Clean-up system in Units 1 to 3. However, closed loop cooling has not been yet established.

Although unrelated to the present emergency, the effect could become cumulative. The Japanese government, looking for a long term solution for a short and long term problem had done little to address the short term problem which continues to force people from their homes to seek refuge elsewhere. With a population approaching 130 million, they may be forced to make a deal with their arch enemy China.

Tammy and Thomas are having trouble coming to terms with their confinement in the hole in the ground. I brought up the subject with Sarah that it might be time we both moved on and considered a life together. We have something in common although she doesn't know it all. Her husband killed my wife and in retribution I killed her husband and buried both bodies because of my fear of getting arrested and convicted of what could only be called a crime of passion.

I couldn't enter into a marriage with her husband's death on my hands and her not knowing. She knew a little about me now and I simply couldn't do that to her.

*Oh, what a tangled web we weave
When first we practice to deceive!*
Sir Walter Scott – *Marmion: A Tale of Flodden Field*

“Married? Now there’s a thought that I’ve had cause to consider.”

“There’s a string and until you know and accept it, it can never be more than a thought.”

“What, you killed my husband and dumped his body down the mine shaft?”

“Actually, yes. I knew she was going to the Lancaster Wal-Mart to get something and she said if they didn’t have it, she’d ask them to check with other stores in the area. When she wasn’t there I called the Lancaster Wal-Mart and the clerk remembered referring her to the East Palmdale Wal-Mart. I headed there to intercept her and remind her we had a date to go out to eat.”

“Sort of reminds me of an old movie, *Sleeping with the Enemy*. I owe you a big wet, sloppy. You can collect it later.”

“I didn’t know how you’d feel knowing of my involvement.”

“He killed your wife. You killed him. Turnabout is fair play. Why did you hide her body?”

“I was afraid the jury wouldn’t have believed it was justifiable homicide (he guessed right), I never thought that area would be developed as it has been. That entire area along 47th Street is has been developed now. Maybe TOM finding her body was a stroke of luck, she got a decent burial in the end.”

“And, unless I miss my guess, you rewarded TOM by giving him your guns except for the 11-87 because you knew he didn’t like semi-automatic shotguns.”

“I went a step further. I bought him the cowboy guns he always wanted.”

“And he got the heck out of California before he got caught? That makes you a multiple felon, the murder and the fraudulent insurance claims.”

“Nobody is perfect.”

“I won’t tell if you don’t. We can get married as soon as we can find a person who can perform the ceremony. I’ll be Bonnie and you can be Clyde. I don’t suppose you have a BAR?”

“Sorry, fresh out. I’m from Los Angeles where...”

“...everything is illegal.”

“That insurance money is how you bought...”

“...the items missing from my armory. We were originally from Nevada. After I finished my PhD, I taught at The University of Nevada, Reno and filled the holes. Do you have a silenced .22LR pistol? I have 2 if you need one. They’re AWC, the integral Badlander on Ruger Mk IIIs.”

“On the books or off?”

“On, sorry.”

“Don’t be. Everything I have except the AUG is on the books.”

“How are you fixed on .22LR ammo?”

“Don’t have any... don’t have any .22 rimfire.”

“I bought CCI and have 2 cases of their subsonic HP rounds. Their Quiet 22 won’t cycle the actions. What do you use in your Glocks?”

“The Lawman bullet weight is 230gr and I have 200gr +P Gold Dot and 185gr Golden Saber. What do you use?”

“Golden Saber 185gr.”

“I figured you for Corbon.”

“That’s nothing but Gold Dot with more powder and expensive to boot.”

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Authors Note: Derek was working on his PhD in History. Mary was a teacher and Coach at a local High School. I’d finally met DJ (Derek, Jr.). I hadn’t heard Yellowstone because I was nearly stone deaf. I ate a lot Campbell’s soup, lacking the teeth to chew much of anything. Someone had opened a Maid-Rite franchise where we lived and the Maid-Rite was still my favorite meal. I’d gum the shoestring fries to death. Sharon would sometimes bring breaded pork tenderloins home and they wore me out eating one, but they were so good.

Derek was out of the Arkansas National Guard with 20 years in. He’d made E-7. I swapped him the M-21 for my M1A Loaded model; I still had problems using rifle-scopes. I wanted a suppressor on my M1A Loaded, though, and finally got one, the Surefire. It cost as much as the rifle; more actually. I also managed to get an extended, threaded, custom fit match grade barrel for the PT1911 and an AWC Triad TI .45 suppressor.

I shoot the Tac-50 once a month, putting 5 rounds through it and saved the brass for reloading. My monthly allowance allowed me to buy 1 box of Hornady 750gr A-MAX

match or 2 boxes of 168gr A-MAX match ammo from Midway USA in Columbia, MO. They're currently out of stock on both cartridges. Most of the SA surplus is left, around 2,000 rounds. Derek has a friend who can reload everything, including Berdan primed. End Note.

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It was a month before we could go outside wearing 3M 8293 P-100 particulate masks and eye coverings. We had about 30" of ash and it continued to filter out of the atmosphere. We hired a local to use his frontend loader to move as much of the ash off the lot as possible. For the moment, it was a lost cause. We got the marriage license in Lincoln after a wait and found a judge to marry us. Rudy and Dawn stood up with us.

There was simply no way to seal up my old house to keep the ash out. The University wouldn't reopen until next fall, if then. I picked up bagged manure and incorporated it and the remaining ash into a garden covering most of the back yard. We drained the remaining fuel in the tanker into the diesel tank and delivered the empty tank back to the biodiesel producer's farm, storing it in his pole building machine shed.

Because of the irrigation well, the garden did surprisingly well and we had to shop for wide mouth quarts. We found them, for \$15 a case, new. Unemployment was high and everyone and his brother were having garage sales. We picked up more used jars than new and they averaged \$10 a dozen. A local locker plant was having a sale on beef and pork so we bought a whole beef and two hogs. The power was back on and we bought a chest freezer for the basement.

However, the power was spotty because of ash shorting out various grid components. Most folks were on city water and couldn't afford to water a garden. Our garden, because of the well, became a target. We openly carried our handguns and usually a shotgun. They weren't loaded with rock salt either. We bought *No Trespassing* signs and when they didn't work added computer generated *Trespassers Will Be Shot* signs. A deputy made us take those down and said we had to detain the trespassers and call the sheriff.

Right. We bought a 100 pack of Safariland Double Cuff Disposable Restraints. We'd just cuff 'em and line 'em up sitting against the fence they'd climbed over to get in. We didn't feed them or give them water. The deputy didn't tell us we had to do that. I couldn't get a variance for barbed wire or razor wire. Someone was always in the garden during the daytime and we set up a nighttime watch schedule based on the four adults taking 4 hour watches. I would have preferred another couple but we didn't have the room.

My oversized lot was only ~1/3 acre, 135'W x 105'D. TOM mentioned their lot was 65'W x 105'D, measured from the center of the street. Ours was measured from the inside of the borrow ditch. (I found a reference to 'bar ditch' in Winfred Blevins' "Dictionary of the American West." Blevins writes, "Borrow Pit. In the West, the ditch on each side of a

road, where earth was 'borrowed' to form the roadbed. Also called a barrow pit, borrow ditch, and, in Texas, bar ditch.") The old 65' square house sat smack dab in the center, crossways, and close to the front giving me/us a huge backyard. The previous owner had cyclone fencing installed, but couldn't get the variance for the barbed wire or razor wire, either. Eventually, the air would be clear enough that Rudy and family could return home. They had a typical city lot like TOM's but maybe wider.

Because of the amount of work the family did, the size of the family and the need for funds to keep them in clothing and so forth, we only took enough of the garden produce to feed ourselves for one year. Rudy and Dawn got the remainder and were able sell or barter some to meet their essential needs. Sarah suggested that we should give them a small wage for guard duty and she'd pay it.

Our house had a 3 car detached garage between the home and the property line. It was on the left if you were facing the house. The back could be accessed via the driveway on the other side of the house, allowing for delivery of fuel. With the tanks we had, we could fill in the summer, avoiding the higher fall and winter prices. The distributor tended to store very little home heating oil in the summer and the best time to fill up was in the spring after it warmed up.

The first year after the eruption, the home heating oil prices didn't drop because it was colder than normal and people were still running their furnaces. Although most residents of Lincoln used natural gas, many had not replaced their fuel oil furnaces and used electric stoves trying to hold onto the past. It may have not been all bad, but people were doing anything and everything to hold onto what they had. A few must have attended a sermon discussing *what's mine is mine and what's yours is mine if I can get it*. We bought another 100 pack of Safariland Double Cuff Disposable Restraints, but no cutter.



That's a Safariland (Monadnock) Double Cuff Disposable Restraint. They run about \$1.60 each purchased by the 100 count. I remember seeing them on one of those SWAT shows on Crime & Investigation Network, Detroit or Kansas City SWAT. Dallas used a clear white double cuff disposable.

One evening I noticed that Sarah had her HK-416, but it didn't look right. The easiest way to find out what she changed was to ask.

"Did you do something to your HK-416?"

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Un-un.”

“Why does it look different?”

“Do you mean this rifle?”

“That’s why I asked.”

“Well, the barrel grew 0.10 inch longer and about 2mm larger in diameter. And the longer barrel is accurized. Is that what you mean?”

“So you put on a heavier weight barrel that’s accurized and 0.10 inch longer?”

“No, it came this way. This isn’t my 416; it’s my 417 that’s chambered in 7.62x51mm.”

“Do you have any other weapons you didn’t mention?”

“No, this is the only firearm I didn’t mention.”

“What aren’t you saying?”

“I didn’t mention my blades.”

“Cold Steel Laredo Bowie?”

“Don’t have one; the small one is the Emperor series O Tanto, the mid-sized one is the Emperor series Wakazashi and the longest is the Emperor series Katana.”

“Why would you have Japanese swords?”

“In case I run out of bullets?”

“Which Tomahawk did you choose?”

“I have 3 Spike Hawks. And I chose 3 Samburu Spears. I didn’t like Shaka Zulu.”

“The man or the mini-series?”

“Both. I did buy a San Mai III Gurkha Kukri (Khukri) but I think I’m too tall to use it properly. I can’t get the hat to maintain the proper tilt either. When we get the time, we need to clean out my other storage locker. That’s where I keep the blades and some other supplies.”

“What other supplies?”

“Most are less-lethal. There’s smoke, flash-bangs, CS grenades, riot grenades and several of the 12-gauge Taser shells. The only lethal stuff is the Frag 12s. I have high explosive blast, fragmentation, and HEAP grenades. I didn’t get flechettes since they’re a waste of money in anything smaller than 40mm.”

“Is that it?”

“Except for a Walton order, some of those Hungry Man MREs from Nitro-pak and double entrées and sides from Mountain House. Oh wait, there’s the extra cooking oil, more tp, feminine hygiene supplies, Earl Grey tea and Folgers coffee. When we go after it we’ll need both trucks and two trailers. I think we can empty it in two trips.”

As we began to unload the storage locker I heard her say, “I wondered what happened to those,” and “I forgot about those,” among other things. When I came across a Bowie Knife, I said, “I thought you said you didn’t have a Laredo Bowie.”

“I did tell you I don’t have a Laredo Bowie. That’s a San Mai III Natchez Bowie. It has a longer blade and different grip. It’s heavy enough to use as a club if you can’t get an opening to use the cutting edge.”

“I beg to differ; it’s a San Mai III Laredo Bowie. I’ll get mine and we can compare them.”

“That SOB. He said it was a Natchez Bowie and they cost more than the Laredo Bowie.”

“If it’s any consolation the false edge on the Laredo is sharpened.”

“Yours is sharper than mine; will you sharpen it when you get the chance?”

“When I get the time, it will be no problem.”

I had the time when we finished emptying the storage locker and stored her goods; her knife was very sharp and only needed a touch up so I started with the extra-fine diamond and finished up with the extra-extra-fine. The extra-fine raised a uniform burr on the top and bottom edges which the ultra-fine removed in a couple of passes. The only thing wrong with her Bowie was that it had oxidized.

She drug out everything with an edge and I ended up touching up each blade. The Cold Steel Emperor Series weren’t the real thing, folded multiple times, but they were good blades. Cold Steel had brought out a different series with longer blades after she’d bought hers.

“They’re all as sharp as I can get them. I wouldn’t use my thumb to test them if I were you. They’re deceptively sharp and you could cut your thumb.”

“I’ll take your word for it.”

It was a long second winter and we didn't have a lot of entertainment and found ways to entertain ourselves. We ran out of condoms and Sarah got pregnant. She approached it rather matter-of-factly with, "I'm pregnant."

"That's great!"

"I didn't know if you'd be pleased or not."

"You were the one who suggested getting condoms, not me. We can get more if you want for limit the size of our family or space the children out."

"When a mother feeds her baby only with her breast milk, this tends to prevent the release of hormones which cause ovulation. This occurs naturally, but it can also be manipulated as a method of birth control called the lactational amenorrhea method. We'll see if it works."

It was getting warmer outside due to the absence of volcanic ash in the air. I used the rototiller to incorporate more manure, this time green or fresh. Bagged manure was unavailable and the stores wanted too much for chemical fertilizers. I did that the moment the ground thawed enough to permit rototilling. While we waited for it warm up enough to plant, we sorted through our seeds discarding any that were broken or didn't look good.

We used onion seeds to get starts and did the same with tomatoes and peppers. This year, the emphasis would be on Roma or plum tomatoes with only 2 beefsteak plants.

The color of peppers can be green, red, yellow, orange and more rarely, white, rainbow (between stages of ripening) and purple, depending on the variety of pepper. Red, yellow, and orange peppers all come from different seeds and are different cultivars of pepper. Red peppers are simply ripened green peppers. Green peppers are less sweet and slightly more bitter than yellow or orange peppers, with red bell peppers being the sweetest. The taste of ripe peppers can also vary with growing conditions and post-harvest storage treatment; the sweetest are fruit allowed to ripen fully on the plant in full sunshine, while fruit harvested green and after-ripened in storage are less sweet.

Compared to green peppers, red peppers have more vitamins and nutrients and contain the antioxidant lycopene. The level of carotene, like lycopene, is nine times higher in red peppers. Red peppers have twice the vitamin C content of green peppers. Also, one large red bell pepper contains 209 mg of vitamin C, which is three times the 70 mg of an average orange.

The photo shows peppers in various degrees of ripeness. Notice the green peppers turning orange.



The long slim chili peppers we planted were probably poblano or anaheim. The fruit would end up being stuffed with cheese, covered in an egg batter and fried producing Chile Rellenos. I'd eat most Mexican dishes but my favorite was Chile Rellenos. I didn't care for quesadillas and it just seemed to me that TOM probably didn't either.

TOM liked beans and rice but mentioned he didn't like corn bread and preferred corn tortillas over flour. You can learn a lot about a person with simple observation while you unload the weapons and ammo. I didn't know he had a problem with riflescopes but how else could one use a Tac-50 effectively? Maybe he let his kid shoot it. He said he loved his 2 boys equally but liked the younger one slightly better than the older because his older boy was too much like him. He had packages of corn tortillas in this refrigerator in the garage.

That brought to mind his claim that bad things happen in three's. Did TOM still believe that or not? Did good things cancel out bad things and break the chain? We'd had 2 bad and one good. The asteroid affected the crust over Yellowstone and it had the largest eruption recorded in the last 2 million years. Sarah and I had found each other and were in the family way. Surely that counted for something.

Apparently the accountant took the day off or something. The weather radios which were now carried constantly with fresh batteries issued a SAME message. In the SAME system, messages are constructed in four parts, the first and last of which are digital.

The first part is a header message, which is transmitted three times, so that decoders can pick "best two out of three" for each byte, thereby eliminating most errors which can cause an activation to fail.

The header is an AFSK data burst, with each individual bit lasting 1920 μ s (1.92 ms) each, giving a bit rate of 52056 bits per second. A mark bit is four complete cycles of a sine wave, translating to a mark frequency of 20831/3 Hz, and a space bit is three complete sine wave cycles, making the space frequency 1562.5 Hz.

The data is encoded in 7-bit ASCII but uses all 8 bits, with no parity bit and no stop bit ("8-N-0"). The least-significant bit of each byte is transmitted first, including the preamble.

The text of the header code is a fixed format of Preamble-ZCZC-org-eee(up to 31 of -pssccc)+tttt-jjjhhmm-llllllll:

1. A preamble of binary 10101011 (0xAB in hex) repeated sixteen times, used for "receiver calibration" (i.e., clock synchronization), then the letters ZCZC as an attention to the decoder
2. org: Originator code; programmed per unit when put into operation EAN - Emergency Action Notification Network (President or other authorized national officials. Shall be used starting November 9th 2011 for the national test)
 - PEP - Primary Entry Point Station (President or other authorized national officials)
 - CIV - Civil authorities (i.e. Governor, state/local emergency management, local police/fire officials)
 - WXR - National Weather Service (or Environment Canada. Any weather-related alert)
 - EAS - EAS Participant (formerly Broadcast Station or Cable System) (Broadcasters. Generally only used with test messages)
3. eee: Event code; programmed at time of event
4. pssccc: Location codes (up to 31 locations); programmed at time of event In the United States, the first digit (p) is zero if the entire county or area is included in the warning, otherwise, it is a non-zero number depending on the location of the emergency.

In the United States, the remaining five digits are the FIPS state code (ss) and FIPS county code (ccc). The entire state may be specified by using county number 000.

In Canada, all six digits specify the Canadian Location Code, which corresponds to a specific forecast region as used by the Meteorological Service of Canada. All forecast region numbers are six digits with the first digit always zero.
5. tttt: Purge time of the alert event (from exact time of issue) In the format hhmm, using 15 minute increments up to one hour, using 30 minute increments up to six hours, and using hourly increments beyond six hours. Weekly and monthly tests sometimes have a

12 hour or greater purge time to assure users have an ample opportunity to verify reception of the test event messages; however, 15 minutes is more common, especially on NOAA Weather Radio's tests.

For short term events (like a tornado) this value could be set to 0000, which will purge the warning after the message has been received. However, this is not typical, and FCC guidelines normally suggest a minimum 15 minute purge time.

The purge time is not intended to coincide with the actual end of the event. Longer events that may not end for days (like hurricanes) may have a purge time of only a few hours. That an event message has been purged does not indicate or imply that the threat has passed.

6. jjjhhmm: Exact time of issue, in UTC, without time zone adjustments jjj is the Ordinal date day of the year, with leading zeros hhmm is 24-hour hours and minutes, in UTC, with leading zeros

7. Eight-character station callsign identification, with / used instead of - (such as the first eight letters of a cable headend's location, WABC/FM for WABC-FM, or KLOX/NWS for a weather radio station programmed from Los Angeles).

Each field of the header code is terminated by a dash character; individual pssccc location numbers are also separated by dashes, with a plus (+) separating the last location from the purge time that follows it.

The Event Code was EAN, a warning code, followed with an NIC, an advisory about the nature of the EAN. That was the interesting part, a computer voice stating the US was on the receiving end of a missile attack and listeners were advised to shelter in place. I took the shelter in place advice to mean that the missiles were so close it wouldn't do much good to evacuate. There was a target in our area, ~60 miles NE, Offutt AFB. Our location was 96° 40' 31" W and Offutt was 95° 54' 31" W. That less than 1° and that's too darned close.

"Will you get the rest of the food out of the refrigerator?"

"Ok, what about the freezer?"

"Only if there's time. How long do we have?"

"My best guess would be 10 minutes or less. Rudy, can you get the food out of the freezer?"

"Yeah. Good thing we didn't move back yet, huh?"

"Right. Did you bring your weapons?"

“We left them in the gun safe ‘cause of the kids. Don’t you remember?”

“Sorry, I’m a little confused at the moment. That SOB was right, they do happen in three’s.”

“What SOB and what are you talking about?”

“Tired Old Man claims/claimed that bad thing happen in three’s. We had the asteroid that caused Yellowstone to erupt, number 1 and number 2. Incoming missiles make number 3.”

“I always lumped the asteroid and Yellowstone together since one caused the other.”

“Bite your tongue Rudy, we don’t want any more.”

“Who is Tired Old Man?”

“An author who writes a version of Post-Apocalyptic World fiction. I owed him a favor one time and paid him in spades. He turned around and repaid me when his younger son was able to get something he and I could use.”

“What did he give you?”

“Twenty cans of Mk 211 MP.”

“Raufoss?”

“The very same. I always figured you for a SEAL.”

“I was a MARINE, Force Recon. I was in a Direct Action Platoon. SEAL, phooey. Some say they’re the best of the best. They may have been at one time but they canned Marcinko. Navyseals dot com says ‘Ass-kicking Navy SEAL and graduate-level business instructor Richard Marcinko, a.k.a. Dick Marcinko, a.k.a. Demo Dick, a.k.a. Rogue Warrior, a.k.a. Shark Man of the Delta, is one of the toughest men ever to serve our country. His best-selling Rogue Warrior series and other fine writings have solidified the Military literature genre and not only advanced its technical vocabulary, but has no less restructured the military memoir narrative as we know it.

‘Demo Dick is raw. So is the truth - the truth about war. *In Vietnam, I’d discovered who could kill and who couldn’t in combat. But that was fifteen years ago, and less than half of SEAL Team Six had ever been in combat. So there was only one way to find out who’d pull the trigger, and who’d freeze – which was to play this thing out and see who did his job and who didn’t. War, after all, is not Nintendo. War is not about technology or toys. War is about killing...* he writes. Dick Marcinko tells it how it is.’ That’s a pretty high recommendation from the people who kicked him out. I’m ready to go, are you?”

“This trip. I’ll come back for the rest.”

Rudy only had the better cuts from the freezer and we’d need everything if we could make a second trip. Sarah finished the refrigerator and Rudy, Dawn and I finished the freezer. I had the basement end of the tunnel sealed and was stepping through the shelter doorway when the ground shook as bad as Yellowstone, but not for as long. We pulled the door shut and dogged it down. No one was going anywhere for some time to come. This shake was much sharper; I don’t know any other way to describe it. Perhaps it was closer, like Omaha?

“Rudy, get the AMP 200 out of the radio cabinet and hook it to the lead with the AMP 200 tag. There’s also an AMP-100 with a 1,000 Rad range. Save that and the low reading AMP 50 for later. There are enough RadDetect PRD 1250s plus dosimeters with two ranges, 200mR and 200R for everyone.”

“Don, Dawn and I will get something going for supper; how about Chili Mac?”

“Which recipe?”

“1 lb. ground beef
1 lg. onion, chopped
1 med. green pepper, chopped
Cooking oil
2 c. macaroni
2 (8 oz.) cans kidney beans
2 (8 oz.) cans tomato sauce
1 c. water
1 tsp. salt
1 tsp. chili powder
2 c. shredded cheese

Brown ground beef, onion, pepper in small amount of oil in a heavy skillet. Drain off fat. Add macaroni, beans, tomato sauce, water, chili powder, and salt to skillet. Cover. Let simmer for 20 minutes. Stir occasionally. Top with cheese. Heat until cheese is melted.”

“I like that one except it is short on chili powder.”

“I’ll use a tablespoon instead and double the recipe.”

I had a feeling that we’d be eating a lot of ground beef during the coming days. The biggest question was who, followed by why. The 6 standard questions are: who, what, why, where, when and how. We knew: what, where, when and how. They were: war, here, now and ICBMs. To the best of my knowledge we’d never had a launch failure of a Minuteman III. As replacements were produced, the old missiles were removed from the silo and replaced. The old missiles were then taken to the Pacific Missile Test Range

and fired from Vandenberg AFB. Nearly every test firing had been successful. Supposedly, the current missiles were de-MIRV'd and carried a Peacekeeper warhead.

Were the rumors that the W87 warheads been upgraded to W87-1 true? If so, they'd have a yield of 475kT. Another rumor that made the rounds was that the missiles had been re-MIRV'd and the D-5 carried a full complement of 12 warheads, the missile's maximum capacity. Various treaties had reduced the number of warheads to 8 and later 4-5.

Whoever attacked hadn't preceded it with HEMP that we knew of. Maybe the first missile or 3 to arrive would be detonated at high altitude and bathe the country with an EMP. One should get most everything while 3 would guarantee it. TOM, are you getting this?

When the government is doing sneaky stuff like violating treaties they just do it and don't talk about it. It is truer now that a conservative Republican is in The White House with an even more conservative Vice President and both Houses of Congress are $\frac{2}{3}$ Republican. Mr. Obama may have been the worst thing to happen to the country, but he was the best thing to happen to the Republican Party.

When he won his second term with Republicans holding a very slight majority in the Senate and a major majority in the House, his attempts to mold the country into a totally Socialist state failed. Name a mistake a Leader could make and he'd made it during his first or second term. We need Thomas Jefferson and got Caspar Milquetoast. Caspar Milquetoast was described as *the man who speaks softly and gets hit with a big stick*, a take-off on TR.

We didn't feel anymore earthquakes so apparently the only Nebraska target had been Offutt ABF. In nuclear war terminology, the attack on Offutt was a counterforce target.

In nuclear strategy, a counterforce target is one that has a military value, such as a launch silo for intercontinental ballistic missiles, an airbase at which nuclear-armed bombers are stationed, a homeport for ballistic missile submarines, or a command and control installation. The intent of a counterforce strategy (i.e., attacking counterforce targets with nuclear weapons) is to disarm an adversary by destroying its nuclear weapons before they can be launched, thereby minimizing the impact of a retaliatory second strike. A counterforce target is distinguished from a countervalue target, which includes an adversary's population, economic, or political resources. In other words, a counterforce strike is against an adversary's military while a countervalue strike is against an adversary's cities.

An ideal counterforce attack would kill no civilians. Military attacks are prone to causing collateral damage however, and this is especially true when nuclear weapons are employed. In nuclear terms many military targets are located in proximity to civilian centers, and a major counterforce strike employing even relatively small nuclear warheads against a nation would certainly inflict numerous civilian casualties. Further, the re-

quirement to use ground burst strikes to destroy hardened targets would produce enormously more fallout than the air bursts used to strike countervalue targets; introducing the possibility that a counterforce strike would cause more civilian casualties – over a medium-term view – than a countervalue strike. Counterforce weapons could be seen to provide more credible deterrence in future conflict by providing options for leaders.

The rationale behind countervalue targeting is that when two sides have both achieved assured destruction capability – that is, that the nuclear arsenals of each side have the apparent ability to survive a wide range of counterforce attacks, and carry out a second strike in response – then, in an all-out nuclear war, the value of targeting the opponent's nuclear arsenal diminishes, and the value of targeting the opponent's cities and civilians increases. This line of reasoning, however, assumes that the opponent values its civilians over its military forces.

One view argues that countervalue targeting upholds nuclear deterrence because both sides are more likely to believe in each other's no first use policy. The line of reasoning is that if an aggressor strikes first with nuclear weapons against an opponent's countervalue targets, then, by definition, such an attack does not degrade the opponent's military capacity to retaliate.

The opposing view however, counters that countervalue targeting is neither moral nor credible because if an aggressor should strike first with nuclear weapons against only a limited number of a defender's counterforce military targets, the defender should not retaliate in this situation against the aggressor's civilian populace.

However, another moral position is that because they are the aggressor, and therefore are starting the conflict, they should not be treated with a “gloves on” approach, as that would give further incentive to be an aggressor.

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Without ever truly admitting it to myself/ourselves, this was the very event all my/our preps had been made in anticipation of. An asteroid strike may or may not have been survivable and with the asteroid that missed the operative word was not. Yellowstone was survivable despite the size of the eruption and the fact that we were only ~750 miles distant from the caldera. Surviving a Global Thermonuclear War (GTW) might depend on your state of preparations and where you were when it happened.

The government of the United States started out with a Civil Defense program in the 1950s. In many western countries there was never strong civil defense policies implemented because it fundamentally violated the west's doctrine of **mutual assured destruction (M.A.D.)** by making provisions for survivors. Also, a fully-fledged total defense would have been very expensive. Above all, compared to the power of destruction a defense was seen by much of the public to be fundamentally ineffective. Despite evidence that detailed scientific research programs lay behind the much-mocked UK's government civil defense pamphlets of the 1950s and 1960s.

In the west's early **M.A.D.** doctrine, a doctrine officially at odds with that of the USSR's ideology that insisted that survival was possible. There are not supposed to be any survivors in **M.A.D.** for a civil defense system to assist (thus the acronym). Governments in most Western countries therefore sought to underfund Civil Defense and implement largely ineffective civil defense measures against nuclear war in the face of popular apathy and skepticism.

Relatively small investments in preparation can speed up recovery by months or years and thereby prevent millions of deaths by hunger, cold and disease. According to human capital theory in economics, a country's population is more valuable than all of the land, factories and other assets that it possesses. People rebuild a country after its destruction, and it is therefore important for the economic security of a country that it protect its people. According to psychology, it is important for people to feel like they are in control of their own destiny, and preparing for uncertainty via civil defense may help to achieve this. If the people are not in control and the preparations ineffective, the government loses its credibility and the respect of its citizens.

In the United States, the federal civil defense program was authorized by statute and ran from 1951 to 1994. Originally authorized by Public Law 920 of the 81st Congress it was repealed by Public Law 93-337 in 1994. Small portions of that statutory scheme were incorporated into the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 100-707) which superseded in part, amended in part, and supplemented in part the Disaster Relief Act of 1974 (Public Law 93-288). In the portions of the civil defense statute incorporated into the Stafford Disaster Relief and Emergency Assistance Act the primary modification was to use the term *Emergency Preparedness* wherever the term *Civil Defense* previously appeared in the statutory language.

An important concept initiated by President Jimmy Carter was the so-called *Crisis Relocation Program* administered as part of the federal civil defense program. That effort largely failed under President Ronald Reagan who continued the Carter initiative because of opposition from areas potentially hosting the relocated population.

One of the duties of our government is to provide for the common defense. Would that not mean negotiating to avoid something like a GTW from happening?

We the People of the United States, in Order to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defence, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution for the United States of America.

We now spell defence with an s so it would say common defense. But the Preamble to the Constitution was the very basis for the document itself. Someone didn't do their duty and provide for the Common Defense!

Sitting in our shelter, listening to the AMP-200 and eating chili mac we didn't know that everyone with a nuclear weapon used them, at least the active weapons. It was the concept of use it or lose it. Most devices directed at us worked. All devices we directed against others worked. The other exchanges didn't concern us. I'd be willing to bet that the Middle East was a slag pile of sand turned to glass.

Neither did we know that not one of the SSGNs or SSBNs had fired a nuclear warhead. Further, we didn't know that the SSBNs carried a total of $14 \times 24 \times 12 = 4,032$ warheads and that half the Tomahawk missiles were TLAM-N. Each of the 4 SSGNs had 22 tubes, each carrying 7 Tomahawks, a total of 308 deployed TLAM-Ns. That number wasn't within our treaty obligations of 400 warheads ($4,032 + 308 = 4,340$ shame, shame). It did explain 3 or 4 classified line items in the defense budget.

My immediate thought was Sarah's pregnancy. She was only two months along... BUT some of those spreadsheets show a 9 month shelter confinement based on an original detonation producing 3,000R/hr. I had the improved version of TOM's spreadsheet with explanations. He claimed that the typical weapon produced 3,000R at ground zero one hour after detonation and the radiation decay began immediately. All radiation decay was a function of the time of detonation, not when it arrived at your location.

We didn't get a lot of radiation from Omaha. Some, but not much. We got quite a bit from either Denver, Colorado Springs or Cheyenne. If I had to guess, it would be Cheyenne, Wyoming, the home of F. E. Warren AFB and a Minuteman III silo location. It was almost due west of our location.

One does the same thing after a GTW that they did after Yellowstone erupted, but they're newer movies you picked up at garage sales when you got the wide mouth quart jars. You also picked up several used books to have something different to read, just in

case. You couldn't get orders filled by the non-existent Walton Feed or Emergency Essentials. Nitro-pak was in Heber City, Utah just up the road from Orem, so...

You did the next best thing, packed your own. You bought oats, barley, durum and hard red winter wheat, all kinds of beans, large bags of rice and popcorn which came in 50 pound bags. You looked for a Sombrero because this new diet would have a very Mexican flavor, but couldn't find one. And, you didn't get the garden in so no Chile Rellenos.

You have located an alternative source of biodiesel which now ran almost \$3 a gallon and a source of gasoline which had only been in short supply briefly. You look for and find a horse breeder but don't buy because you're short on space and horses need room to move around and feed which is expensive. He's two sections over from your new biodiesel guy and you find him by asking the biodiesel guy. Word of mouth is still the best advertising.

We had food and the means to grow more, after the nuclear winter if it occurred. There-in lay an ethical dilemma... who would we help if the survivors of Yellowstone had taken the lesson to heart and built shelters allowing them to survive the GTW. Ethical dilemmas are often cited in an attempt to refute an ethical system or moral code, as well as the worldview that encompasses or grows from it.

These arguments can be refuted in various ways, for example by showing that the claimed ethical dilemma is only apparent and does not really exist (thus is not a paradox logically), or that the solution to the ethical dilemma involves choosing the greater good and lesser evil (as discussed in value theory), or that the whole framing of the problem is omitting creative alternatives (as in peacemaking), or (more recently) that situational ethics or situated ethics must apply because the case cannot be removed from context and still be understood. See also case-based reasoning on this process. An alternative to situational ethics is graded absolutism.

Perhaps the most commonly cited ethical conflict is that between an imperative or injunction not to steal and one to care for a family that you cannot afford to feed without stolen money. Debates on this often revolve around the availability of alternate means of income or support such as a social safety net, charity, etc. The debate is in its starkest form when framed as stealing food. In *Les Misérables* Jean Valjean does this and is relentlessly pursued. Under an ethical system in which stealing is always wrong and letting one's family die from starvation is always wrong, a person in such a situation would be forced to commit one wrong to avoid committing another, and be in constant conflict with those whose view of the acts varied.

We could sell, barter, trade or even give away any excess we grew. Giving it away would probably be limited to real hardship cases. We were secure in our shelter and had the means to defend ourselves when we eventually exited. We had items pinpointed for the PAW situation, like those horses, assuming they were still there. I was totally unaware of some preparations Sarah had made using her money, of course.

"This is TOM's fault. He usually ends his tales with a third disaster being a GTW. I bought him Cowboy guns like he always wanted and didn't think to do the same for myself."

"I wondered about that when you told me. Never fear, Mighty Mouse is here."

"Say what?"

"Mighty Mouse was a cartoon character before we were born; sort of a miniature, animated super mouse. I got the dealer I use to order 8 sets of the original .45 Colt Vaquero revolvers and bought the Winchester model 1886 and 1892 rifles. Dawn gave me sizes and I bought leather all around with various length gunbelts for the children and scabbards for the rifles and 1878 Coach Guns.

"I added a few thousand rounds of cowboy loads and full power loads. The .45-70 was expensive, I bought Buffalo Bore. I took TOM's suggestion and got the leather from Fitzpatrick in Laredo. For the kids, I went with the Old West Marshal crossdraw rigs with extra cartridge belts. For the adults, I selected Laredo crossdraw rigs. In all cases the crossdraw holsters are for the smaller revolvers, like 4⁵/₈". To keep us going for a lifetime, I bought a lot of primers, smokeless powder and Pyrodex plus a ball mill so we can make our own black powder and screens to determine powder size.

"At the moment, I'm sure to outgrow the Laredo rigs, but that's only temporary."

"Which brings to mind something that has been bothering me. What's going to happen if we have to shelter a full nine months?"

"You'll boil the water and Dawn will deliver the baby if the radiation level is too high to go into Lincoln and find a Doctor."

"It appears that the radiation we're getting is from the Cheyenne area. The timing and levels are in keeping with detonations there."

"They went counterforce?"

"A combination, I think. Offutt would be a perfect example of a combination counterforce /countervalue target."

"I've made some calculations. Assuming the baby arrives on time, the fallout should be low enough to venture out for a few hours at a time. We can compensate for the increased radiation by extending the shelter stay. If any city has a Guard presence, it should Lincoln since it's the capital. The only disadvantage I see for our immediate situation is not enough people to protect that we have."

"So, take over the 2 adjoining 1/3 acre plots. Does that irrigation well supply enough water for more homes?"

"It's a 6" well casing so it should provide enough water. The septic system probably wouldn't handle much more effluent."

"So, expand the septic system And while you're at it add the barbed wire topping and screw getting a variance."

"Are Dawn and you ready to permanently to relocate here?"

"We already have the mobile home picked out assuming it's still there. We also think that the front of the one acre plot should have a block wall or berm to protect the expanded area."

"Do you know how to lay block Rudy?"

"Never tried it. Surely there're a few masons around who are hard up. If we can find an abandon masonry firm, we can get block, mortar and rebar. Might not be a bad idea to run a few alarm wires through the cyclone fence at various heights. We can use some of that thin enameled wire."

"At least we won't have to fence the other 2 plots; only add the barbed wire tops."

Over 30 days passed when we picked up our first contact on the 40 meter band. The caller was a ham from Fort Smith, Arkansas.

"This is Jared Franklin calling anyone on the frequency."

"Jared this is Paul Grey near Lincoln, Nebraska. Are you doing ok down there?"

"I don't know about doing ok, but we're alive. I know they hit KC and St. Louie. Little Rock took it on the chin too. What did you get?"

"They hit Offutt ABF about 60 miles northeast of us. We think the fallout we're getting is from F. E. Warren ABF in Cheyenne, Wyoming."

"High?"

"It's down to a shade over 1.1R/hr."

"We didn't get that much. We're guessing that ours might have come from further west; likely Tulsa or Oklahoma City."

"Are you good for now?"

"We are. Upgraded the storm shelter a few years back, after 9/11. It'll be close; we only have about 9 months' worth of LTS."

“That’s more than we have.”

“How about we stay in touch; same bat channel plus 25, same bat time minus 1, every other day.”

“Ten-four. I’m clear.”

“Why did you lie to him? You know we have more food than that. And what’s this business about bat time and bat channel?”

“We don’t know who might have been listening in. The other is from the old TV show Batman. Channel +25 tells him to add 0.025 to the frequency and Time -1 tells him one hour earlier.”

“Nobody in their right mind would be out in 1.2R/hr radiation.”

“We know the radiation level, but do other people know? Even if they know, they wouldn’t have much choice if they’ve run out of food or water. You want me to broadcast, ‘everyone within the sound of my voice come and see us, because we have lots of food’?”

“How would they find us?”

“Simple, a small loop antenna and patience. Since the directional response of small loop antennas includes a sharp null in the direction normal to the plane of the loop, they are used in radio direction finding at longer wavelengths. The loop is thus rotated to find the direction of the null. Since the null occurs at two opposite directions, other means must be employed to determine which side of the null the transmitter is on. One method is to rely on a second loop antenna located at a second location, or to move the receiver to that other location, thus relying on triangulation.”

“Who attacked us and why?”

“Who is yet to be determined but probably Russia and or China. The scope of the attack should tell us who. The reason why they attacked us may never be known.”

“Was there any news the last few weeks to suggest who?”

“Not that I’m aware of. Everything seemed peaceful based on the news. Some countries were experiencing low crop yields because of Yellowstone, but we were too. Frankly, it doesn’t make any sense.”

“Can we figure out who did it using a process of elimination?”

"I suggested that when I mentioned the scope of the attack. Only the United States and Russia have large weapons inventories. The 3rd largest inventory is held by China. France is 4th and either the UK or Israel is 5th. It's really hard to say about Israel due to their policy of nuclear ambiguity. Several reports have surfaced claiming that Israel has some uranium enrichment capability at Dimona. Vanunu asserted that gas centrifuges were operating in Machon 8, and that a laser enrichment plant was being operated in Machon 9, Israel holds a 1973 patent on laser isotope separation.

"According to Vanunu, the production-scale plant has been operating since 1979–80. The scale of a centrifuge operation would necessarily be limited due to space constraints. Laser isotope separation, however, if developed to operational status, could be quite compact. If highly enriched uranium is being produced in substantial quantities, then Israel's nuclear arsenal could be much larger than estimated solely from plutonium production. Uranium enrichment could also be used to re-enrich reprocessed uranium into reactor fuel to more efficiently use Israel's uranium supply."

"In other words you don't know?"

"That's what I said Sarah, who is yet to be determined but probably Russia and or China. The scope of the attack should tell us who. The reason why they attacked us may never be known."

"What happened to Vanunu?"

"Arrested, tried for treason and espionage and got 18 years. He's out now and was under house arrest the last I knew."

"You don't suppose Israel attacked us do you?"

"There are as many Jews in the US and Canada as in Israel. Not likely to my way of thinking. We'll know soon enough. After the ionization clears, hams will be talking back and forth and we can eavesdrop. We can't get triangulated just by listening."

Furthermore we only had 20 cans of Raufoss which would be our ammo of choice for most things in the PAW. We kept a radio watch 24/7 trying to pick up any news from Lincoln. We finally broke the silence when we heard there was a doctor in Lincoln tending to those with radiation sickness. He was a smart one, a prepper who knew exactly how much radiation exposure he could stand and was only out and about occasionally. He listed several frequencies that they monitored. I liked the one in the cellphone range that our *adapted* transceiver could use.

"Got your ears on Doc?"

"Who is calling me?"

“This Paul Grey and I teach Philosophy at the University of Nebraska or did before Yellowstone. My wife is a Professor of Economics and 8 plus months pregnant. It’s her first child. I sure would appreciate if you could look at her.”

“Tell me where you are and I can come tomorrow.”

“How about I pick you up tomorrow? We have extra medical supplies we can offer in trade for your services.”

“Any prescription drugs?”

“Not much of that but plenty of over the counter stuff.”

“What’s your office number at the University?”

“Two-thirteen.”

“I’ll find it and meet you at nine tomorrow morning. Is she on prenatal vitamins?”

“Yes sir, from the beginning.”

“How will I recognize you?”

“How about Cowboy guns and a wide brimmed gray felt western dress hat.”

“You have the guns to go with the revolvers?”

“Winchester 1886, 1892 and 1894 plus an 1878 Coach Gun.”

“TOM fan, huh?”

“I’ve met the man.”

“Do tell.”

“Tomorrow.”

What I had was leftover Xanax and some Norco prescribed once when I’d hurt my back. Norco is APAP 10/325; ten milligrams of hydrocodone and 325 milligrams of Tylenol. They worked well together, the Norco reduced the pain slightly and the Xanax made you not care. I don’t know if they’re synergistic and don’t really care. (They aren’t.)

“You the Doc?”

“I am. Doctor Jack Smith. Did you check your prescription drugs?”

“We don’t have much, some 0.25mg alprazolam and a few tablets of APAP 325/10.”

“No antibiotics?”

“We weren’t expecting a GTW Doc. Do you know anything about it?”

“Not much. Word is it was the Russians and we gave better than we got as far as their infrastructure goes. I believe their population made out far better than ours since they have a bunker system and could protect the people important to any recovery effort. You want to stand around jawing or take me to my patient?”

“I’ll take you to see Sarah.”

“This your first time out of the shelter?”

“Yes. We were trying to preserve our radiation doses as much as possible and of course Sarah can’t go out at all.”

“Smart. Are those Colts or reproductions?”

“The handguns are Ruger Vaqueros and the Coach Guns are reproductions. The rifles are real Winchesters.”

“That all you have is cowboy guns?”

“Not exactly. We’re fairly well armed, considering.”

“Considering what?”

“How many of us there are at our place. With Sarah out of the picture, we’re down 25%. But I expect Rudy kids will lend a hand since they have firearms.”

“What’s your radiation level running?”

“Between 150 and 125mR/hr.”

“It was Cheyenne, you know.”

“We figured that. We don’t pick up a lot of radio contact.”

“What band are you running?”

“Forty meters.”

“Try ten meters or even the eleven meter band. Everyone and their brother’s drug out old CBs. They’re fine for around town.”

“Town? It’s the state capital for crying out loud.”

“Well, it’s a small city or large town but much bigger than Omaha these days.”

“We figured they hit Offutt.”

“Sort of missed, but not enough to matter. It was a big warhead and came down around I-480 and Highway 92. That’s south of Omaha and north of Offutt. We’d have been in worse shape if they hit Offutt. Not much, but a little more damage to the infrastructure.”

“I didn’t see much damage.”

“Be glad they were short.”

“We’re here.”

“You aren’t that far out of town. How big is this place?”

“It started out $\frac{1}{3}$ acre before Yellowstone and will grow to 1 acre after we get out.”

“What about TOM?”

“He moved to Arkansas after he got fully equipped with all the guns he wanted.”

“A .50 cal in California?”

“California didn’t know it. He found my missing wife’s body and I rewarded him with a portion of the insurance money in guns and ammo. Later, he supplied me with some of that imported .50 cal.”

“I know what you mean. How many cans?”

“Twenty.”

“Twenty-four hundred rounds?”

“We only shot enough to sight in Sarah’s AW-50 and my Tac-50 A1R2.”

“What no M82A1?”

“I wouldn’t have one but my friend John, another Professor, had one that he sold to my friend Rudy when John took a position at the University of Iowa.”

“Teaching what?”

“Economics. My wife Sarah left the University of Nevada, Reno to take his position as a full Professor. In a way, our paths crossed back in 2012 although we only met a short time before the asteroid.”

“And the two of you got together?”

“I was a widower and she a widow and we were both into preps. Doc, you wouldn’t believe how much food we have stored. We made those Doomsday Preppers from that old TV show look pathetic. One of the reasons I feel safe in mentioning this to you is because you’re a prepper too.”

“True, but Shirley and I are beginning to run short.”

“How much would the two of you need to hold out until we can come out of the shelter? I’m assuming that TOM is right about the 104mR/hr.”

“He’s right as far as it goes. That exposure would get you to 300R in 120 days. However, as I’m sure you know, the radiation continues to decay.”

“Sure, but he suggests not staying out until the radiation level is around 50mR/hr. My copy of his spreadsheet says that will happen around 65 weeks, more or less.”

“You say you know him?”

“Met him. My first wife and I lived in Lancaster. She went missing on Election Day 2012. Sarah’s husband went missing the same day. They found his body in a mine shaft and eventually TOM and his dog Elizabeth found Michelle’s remains. That was about 4½ years after she went missing.”

“Mummified or totally decomposed?”

“All they found was her skeleton. Said they identified her from mitochondrial DNA they got from her mother at the time she went missing.”

“Human mDNA can also be used to help identify individuals. Forensic laboratories occasionally use mDNA comparison to identify human remains, and especially to identify older unidentified skeletal remains. Although unlike nuclear DNA, mDNA is not specific to one individual, it can be used in combination with other evidence, anthropological evidence, circumstantial evidence, and the like, to establish identification. MDNA is also used to exclude possible matches between missing persons and unidentified remains. Many researchers believe that mDNA is better suited to identification of older skeletal remains than nuclear DNA because the greater number of copies of mDNA per cell increases the chance of obtaining a useful sample, and because a match with a living relative is possible even if numerous maternal generations separate the two.

“The outlaw Jesse James's remains were identified using a comparison between mDNA extracted from his remains and the mDNA of the son of the female-line great-granddaughter of his sister. Similarly, the remains of Alexandra Feodorovna, Alix of Hesse, last Empress of Russia, and her children were identified by comparison of their mitochondrial DNA with that of Prince Philip, Duke of Edinburgh, whose maternal grandmother was Alexandra's sister Victoria of Hesse. Similarly to identify Emperor Nicholas II remains his mitochondrial DNA was compared with that of James Carnegie, 3rd Duke of Fife, whose maternal great-grandmother Alexandra of Denmark, Queen Alexandra, was sister of Nicholas II mother Dagmar of Denmark, Empress Maria Feodorovna.”

“We go into the house and down the steps to the basement.”

“Secret tunnel?”

“Not to the contractor who built it. We do keep a cabinet in front of it that rolls out to expose the first blast door.”

“You have more than one?”

“One at each end of the tunnel to create an airlock of sorts. There's a shower to decontaminate, if necessary, before one enters the shelter proper.”

“I'm Doctor Smith. You must be Sarah unless someone else is expecting. Just call me Doc. I can't be sure since I haven't examined you before, but I'd say the baby has dropped.”

“I think you may be right, I've been getting awful cramps. Could it be the beginnings of Labor?”

“Let's get you in your bed and I'll get my gloves so I can see if you've begun to dilate.”

“Your wife is in Labor and dilated to 4cm. Would you introduce me to everyone?”

“This gentleman is Rudy, the Lady is his wife Dawn, their daughter's name is Tammy and son's name is Thomas.”

“Dawn, would you and Tammy go in and stay with Sarah? I'd guess we have about 5 hours before Sarah delivers.”

“How do you figure that Doc?”

“Normal advancement in 1.2cm per hour. She will be ready to deliver when she reaches 10cm.”

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“Is it alright if I use your radio to call Shirley?”

“Help yourself. Coffee?”

“Please.”

It seemed obvious to me that the Doc was a prepper, he didn't say, *you have coffee?* Sarah seemed to have a mind of her own. Not only was the baby coming early, the baby was coming fast and brought a friend. Paul David was born first and Angela Marie was hanging onto his ankle, more or less. I guess maybe that explains why Sarah was as big as a barn. It was a good thing she didn't have triplets, she only had 2 spigots.

We waited until the radiation was down to 95mR/hr before we went out. The limit was established at 8 hours per day, 2 hours for Sarah and 0 hours for the twins. Our first order of business was to combine the 3 1/3-acre plots into a full acre and add the barbed wire topping. We used fine enameled wire between the fence links and set up a control panel in my den with a klaxon announcing if a wire was broken.

We got into Sarah's gold to get a stallion, 3 mares and 6 geldings. They were just saddle horses nothing fancy but they came with some well used tack. Our first salvage run had been for the barbed wire and our second was for better tack. Couldn't find pommel bags but the saddles were new and we added saddle bags and lariats. Tammy and Thomas had fun practicing lassoing.

We did not venture to the northeast; it was just too hot for the moment. Sarah and I had a long discussion about the twins and finally agreed to keep them in the shelter until the outside radiation level was 30mR/hr. They would be several months old by then.

With the extra space afforded by adding the two lots, we had room for a small mobile home park on one lot and a pasture on the other lot. My well was large enough to supply water for 6 mobile homes and the livestock. It went in stages, starting with a local putting in a septic system in exchange for a trailer spot. He also ran the water lines in the same trench. The mobile homes selected were singlewides with gas/propane heat. Rudy and Dawn had the first trailer emplaced and Doc and his wife Shirley the second. Our resident plumber, Alvin, got the third, leaving 3 empty spots.

Cover for the livestock consisted of a single covered three-sided building, open to the pasture. A chicken yard and coop took up one corner near our lot.

“What do you intend to do about additional garden space, Paul?”

“Doc, the 1/3-acre trailer plot will actually hold at least 8 homes if they were packed tight. The total area is on the order 14,500ft², give or take. The pipe locations don't leave

much space between the trailers. That leaves a fair amount of free space at the back. Will that do?"

"Doesn't matter, we'll make it do. You need seeds?"

"I was going to ask you the same."

"So, does Rudy work for you?"

"He's not an employee although Dawn and he pull guard shifts. Sarah paid them a little cash to buy things they needed that we didn't grow."

"You're talking about after Yellowstone?"

"Exactly."

"I'd be more than happy if you'd add my name to the guard rotation."

"Doesn't that violate your Hippocratic Oath?"

"I swear to fulfill, to the best of my ability and judgment, this covenant:

"I will respect the hard-won scientific gains of those physicians in whose steps I walk, and gladly share such knowledge as is mine with those who are to follow.

"I will apply, for the benefit of the sick, all measures that are required, avoiding those twin traps of overtreatment and therapeutic nihilism.

"I will remember that there is art to medicine as well as science, and that warmth, sympathy, and understanding may outweigh the surgeon's knife or the chemist's drug.

"I will not be ashamed to say 'I know not', nor will I fail to call in my colleagues when the skills of another are needed for a patient's recovery.

"I will respect the privacy of my patients, for their problems are not disclosed to me that the world may know. Most especially must I tread with care in matters of life and death. If it is given to me to save a life, all thanks. But it may also be within my power to take a life; this awesome responsibility must be faced with great humbleness and awareness of my own frailty. Above all, I must not play at God.

"I will remember that I do not treat a fever chart, a cancerous growth, but a sick human being, whose illness may affect the person's family and economic stability. My responsibility includes these related problems, if I am to care adequately for the sick.

"I will prevent disease whenever I can, for prevention is preferable to cure.

“I will remember that I remain a member of society with special obligations to all my fellow human beings, those sound of mind and body as well as the infirm.

“If I do not violate this oath, may I enjoy life and art, be respected while I live and remembered with affection thereafter. May I always act so as to preserve the finest traditions of my calling and may I long experience the joy of healing those who seek my help.”

“So you don’t really promise not to take a life?”

“It’s more like, if you have to, shoot straight. Most people in the healthcare profession are codependents. They have to, in the present situation, learn to improvise, adapt and overcome. Yeah, I saw the movie and read some of the stories. Even if it’s just a line of dialogue from a movie, it’s good advice.”

“How are you set on drugs?”

“After Yellowstone, I stocked up. I have enough for the present and ask everyone I contact if they can spare any. I know you have Xanax and Norco and won’t hesitate to ask if I need them. You have a rototiller?”

“A Troy-bilt. It will probably take at least two passes through that sod.”

“Guess I’d better get started then.”

“Rudy, you can add Doc to the guard rotation. I’ll ask Alvin if he’s willing.”

“I’ve got my doubts about him. He’s a good plumber and all, but...”

“But what?”

“He’s a little on the liberal side.”

“Let’s take a ride.”

“Where’re we going?”

“Shopping in Lincoln. So you know how to use a cutting torch?”

“A little. I’ll figure out what I need to know. We going salvaging?”

“We are. We could use more guns and ammo, PV panels, inverters, charge controllers, batteries and cables. Plus we need the cutting torch and the bottles of gas.”

“We’d better take your pickup and trailer.”

Our first stop got the cutting torch, thermal lances and bottles of gas. Next, we hit the local gun dealers, all classes. The good stuff was locked up in safes, thus the cutting torch. The firearms selected went into the back seat and the ammo into the (locking) trailer. If a person wanted just any old gun, they were out of luck; the shops had been looted, scavenged, scrounged and salvaged of the readily available merchandise. The expensive firearms were locked up.

Basically that meant any firearm running over \$1,000 based on what we found. It also applied to the high quality ammo, the match grade cartridges. We didn't find any large caliber rifles like .50BMG, .416 Barrett, anything by CheyTac and only one .338 Lapua with several cases of factory ammunition. The invoice was taped to an ammo box and it was an order for a single individual. We took that along with the M1As, FALs and PTR91s. There was an order for the Lincoln PD that consisted of 6 HK-417s and 18 HK-416s with a large supply of magazines and Hornady ammo... 168gr match for the 417s and 75gr match for the 416s, perfect. Each was equipped with a German suppressor and all 24 had 20" barrels. The 416s had grenade launchers and reflex sights. The 417s had bipods, scopes and night vision.

After the class 3 dealer, who also sold retail, we were primarily looking for better handguns, more ammo and leather. We picked up more ammo, leather slings, combat slings, shotguns, some with bayonets and some without, along the way. Next stop was the coin dealers. We didn't get a lot at any given location. The Pawn shops seemed to have the largest inventories. We ended up with an assortment of M1911 pattern and Glock handguns.

The grenade launchers, no doubt intended to launch tear gas and riot control rounds lacked ammo. They were, however, H&K 40mm launchers and all we need were 40mm grenades. Where to look, where to look?

"Pick your own poison Doc."

"HK-417?"

"Yep."

"Kimber?"

"Got those, Springfield Armory and Taurus in M1911 pattern. Got Mossberg 590A1 with and without."

"With and without what?"

"Bayonets."

"I don't see what I'd really like."

“What’s that?”

“A Springfield Armory Super Match with bipod, scope, night vision and suppressor.”

“The rifle is near the bottom of the pile. Bipod is mounted. Scope, night vision and mounts are in a separate box and the suppressors in a third box.”

“What brand of scopes?”

“Nightforce. We were like kids in a candy store once we got through the locks on the vaults. If you want a big boy toy, there’s an Accuracy International AWM-338, the British L115A3, fully outfitted. Has a Zeiss scope, not the Schmidt and Bender. It was probably on hold because of the suppressor.”

“I’ll take it. All Shirley has is a 20 gauge pump. What can you give her?”

“How about an HK-416, magazines, match grade 75gr ammo and a 9mm pistol?”

“What brand pistol?”

“Browning Hi-Power classic or H&K.”

“The Browning.”

“All the spare magazines are 15 round magazines.”

“She can carry the 15 round mags as her spares.”

“Get what you want out of the pile while I go see Alvin.”

“Alvin, how are you doing?”

“I’ve been better.”

“You and your family are alive, what could be better than that?”

“I’m unemployed, so a job would be nice.”

“I can help. Well, it’s only part time but we’ll pay you the same as we pay Rudy.”

“Doing what?”

“Guard force.”

“With guns???”

“Would you rather have 3 spears? We have them and 3 tomahawks.”

“What kind of guns?”

“One of the best, the HK-416 with H&K magazines and we’ll throw in a grenade launcher. I figure you don’t have a knife so the shotgun will have a bayonet. We’d better give you a Glock since they’re the safe pistol.”

“Wait a minute; I didn’t agree to carry guns.”

“We’ll help you move your trailer to another trailer park.”

“What for?”

“You didn’t read the fine print? A condition of living here is helping guard the place.”

“What about Doc? His Oath is to do no harm.”

“He’s on the guard force. He recited his Oath to me when I asked and it doesn’t say to do no harm. Ask him.”

“Doesn’t matter. It’s against my principles.”

“Suits me. Start unhooking the pipes. Leave the generator we got for you. We’ll pull your trailer out the first thing in the morning.”

“Why the frown?”

“Alvin is a pacifist. He won’t help guard the place and I told him we’d tow him in the morning.”

“That’s a bit harsh.”

“It’s a tough world these days. People have to pull their own weight. Don’t know if we have a government or not since we haven’t heard from them. Alvin is the type that expects the government to take care of him. We are not the government. Once we start down that path...”

“I get your point. Want me to go talk with his wife Ramona?”

“That’s up to you. Just remember, birds of a feather...”

“I know, I know. What if she agrees to pull guard duty?”

“In his place? No go, he has to do it. Now if she wants to do the same as Dawn, I’ll go along with that. Dawn does it because Rudy does it. You’re exempt for the moment until the twins are weaned.”

“Two is my limit. There’s no way I’m going through that again. I talked to Doc about the Ensure inserts. He said he had them and could do it 6 weeks after the delivery.”

“What is or are Ensure?”

“A small device inserted into the Fallopian tubes that seal them permanently within 3 months although it can take as long as 6 months. They check using an X-Ray machine to confirm closure. The procedure is non-invasive and the small devices are inserted via the vagina and uterus directly into the tubes.”

“Ok, if you think it best.”

“We have a son and a daughter and given the state the world is in, they will be challenge enough to raise properly. It’s strange, that I bought the correct number of firearms.”

“Do you suppose that there is any adjoining land for sale or free for the taking?”

“Why don’t Rudy and you check around? Dawn mentioned he was raised on a farm before entering the Marine Corps.”

“I would have never believed it. We’re building an intentional community.”

“You’re right. That goes to the argument that there is safety in numbers and acquiring additional land will allow us to feed our little intentional community and sell or barter the excess to the remaining Lincoln residents.”

“We might generate enough income to get to Grand Island.”

“Paul, we’re at the stage where TOM usually began counting in terms of how many wars he could fight. The old fashioned arms I acquired are just that, old fashioned. They’ll kill people just as dead as our modern arms. Even the lower power cowboy loads should do a decent job if needed to do so.”

“They’ll be handy on the horses; otherwise I’ll stick with the modern firearms. The salvage operation that Rudy and I ran should be good for an extra war.”

“You watch the twins and I’ll go talk to Ramona. They’re sleeping at the moment so keep the noise down to avoid waking them. She’s been friendly enough even though Alvin hasn’t. What did you have in mind to give them?”

"I thought we'd go with HK-416 or 417, Mossberg 590A1 with bayonet and Glock pistols; probably the 417 and Glock 21 for him and a 416 and Hi-Power for her."

"Would you believe that it wasn't about him being afraid? He was a jarhead and served two deployments to Iraq and one to Afghanistan. He said he had a belly full of war and killing. He'll take the HK-417 and she'll take the HK-416."

"Damn."

"Don't cuss. What did you forget?"

"I didn't know Shirley had a 20 gauge pump and didn't get any 20 gauge shot shells or slugs."

"Did you see any?"

"Yes, it was Federal brand and I saw slugs and either number 2 or number 3 buckshot. We're going looking for PV panels as a more permanent solution to the power being out. I checked the Yellow Pages and there are two firms in Lincoln selling alternative power solutions. Sure wish I knew where to find 40mm grenades for the HK-416s."

"Ask Rudy. Don't you remember he ask if we had any 40mm? I told him I had two launchers but no ammo. He either has it or knows where to get it. If it's there to get it, don't be shy. Pick up more rockets and hand grenades of all types. More Raufoss might come in handy too. We need the means to defend against vehicles, armored or otherwise."

"We'll do that before the PV panels and associated equipment."

"Be careful. You might ask Alvin to lend a hand and give them their weapons."

"I'll give Alvin his. I'll advise Ramona to see you about guns for her and the two boys. Since you have a 416 and a 417 you can show them how to clean and service them."

"Coffee klatch?"

"Hi Dawn. Help yourself to coffee. All I have is powdered creamer. Actually Ramona and the boys came over to get their firearms. I need to instruct them in their use. Care to join us?"

"Good idea and yes, I'll join you. I'll see if Shirley wants to join us, if you don't mind."

"By all means, ask her."

"I'll go see her now and come back to finish my coffee."

Rudy and I arrived home late in the day. He had HE 40mm grenades and we got more of those plus HEDP, Air Burst, Canister and Practice. We also added 2 Milkor Multiple Grenade Launchers (MGL-140). We had cylinders filled with bandoleers. We removed the rockets from the shipping containers and loaded them in the bed of the pickup along with additional 5.56x45mm and 7.62x51mm ammo. We had a lot, over 150 cans, of belted 7.62x51mm for the 3 M240s we found. But, we didn't find any Mk 211. We found enough matériel that we couldn't bring back PV panels and the associated equipment. We did find more than enough 20 gauge slugs and buckshot to equip Shirley for several wars.

Our wives had spent most of day on the range. Sarah had everyone up to speed on their selected weapons. She'd issued ALICE gear to everyone that I'd picked up at surplus stores before I met her. Alvin had our backs as Rudy and I went through the distribution location gathering the ammunition and equipment. Doc had been called into Lincoln to tend to several patients, leaving our compound unguarded. He would ride shotgun the following day when we salvaged PV panels, etc.

The south facing house roof and garage roof were soon covered with PV panels and the remainder was being installed on the trailer roofs. The batteries and inverter/charge controllers were in a rack where an upright freezer usually stood. The 3 row PV array would have extended 210' had they been placed in a single row. The 69 panels were 48vdc, 300w and roughly 72" long and 36" wide, placed 23 per row. The output under ideal conditions was 20.7kw.

In daylight conditions, the maximum available amperage was 172.5 amps assuming 100% system efficiency. We were getting between 95 and 98% efficiency so call it ~164 amps. We had power to use and power to store. We also had enough equipment for 3 more trailers and 2 outbuildings if we acquired more land.

When the first trailer was brought in, we salvaged 6 1,100-gallon propane tanks and borrowed a propane delivery truck to fill them and keep them topped off. My propane tank for the hot water heater was also topped off. No more than it used, those 1,000-gallons, net, would last years. However, we located propane generators for each home, initially. When we got the PV panels up, battery rack and everything else running, we added an automatic transfer switch to kick in the generator when the batteries were discharged.

Now that we had the Alvin problem solved, we had seven adults available for guard duty. We determined that the $\frac{1}{3}$ acre lots were subdivided from a half section that hadn't been developed for whatever reason. We un-subdivided the land and added a gate to the cyclone fence. It wasn't hard; we just had to cut the enameled alarm wire, using the gate itself as the connection point. It took a while to get accustomed to radioing in to have Sarah cutoff the klaxon. And, while we considered a remote control, we didn't follow through.

There was no way we were going to enclose the other 319 acres in chain link fence topped by barbed wire even if we could find the fencing. For one thing, it was over 2 miles and for another thing, it was actually 3 miles. I know that because a section is a square one mile long on each side. Our new half section would actually require 3 miles of fencing and 1,584 posts or more. Plus gates.

The place was already fenced with pig wire and barbed wire. It wouldn't keep anyone out but it would keep the livestock in. Besides, we could cover every corner of the farm with our big rifles, the .338 Lapua and .50BMG. The maximum range would be ~1245 yards or 1,138 meters, a chip shot for some and a reasonable shot for the less skilled large bore shooters.

As mentioned, we had a 6" drilled well and it filled a 5,000-gallon cistern using a submersible pump. In turn, a 200-gallon pressure tank drew water from the cistern and supplied all the water we used. A diesel fueled portable pump could pull water from the cistern at the rate of 500gpm and dispense the water through a 1½" fire hose with an adjustable nozzle. We had 6 100' sections of 1½" Forestry Hose with a wye at the pump to permit 2 lines at once. The nozzles were rated at a maximum flow of 200gpm and the submersible pump could almost keep up with the maximum flow rate of 400gpm because it could pump > 300gpm refilling the cistern.

Think about it, the fire hoses were much more than firefighting equipment, they were adaptable for riot control. Also, keep in mind our sources of electricity, most was PV panel produced, stored in batteries and inverted into AC.

The next piece added to the puzzle was livestock including beef and milk cows, 2 bulls, sows and 2 boars. It took the better part of a week to find enough live chickens to populate the chicken yards and located some brood hens and roosters. We noted locations where live rabbits could be found and informed the folks in Lincoln. Eating rabbit is a matter of choice and I'd rather eat beans.

Because barbed wire and horses didn't mix, we salvaged some 1x4s and put them on the inside upper half of a dedicated horse pasture fence. Although we'd purchase 10 horses, we'd ended up with 27. There were 2 stallions, 10 mares, 10 geldings and 5 younger colts and fillies. We'd cleaned out that tack store and it was just a matter of fitting the saddles to the horses when they were old enough.

Our last salvage run had been for more fuels including diesel/biodiesel, gasoline, propane and fuel oil. We took Travis Dane's advice and let our fingers do the walking in the Yellow Pages. You see, this wasn't the 1950s where Montgomery Ward and Sears and Roebuck put out catalogues with several model of everything. If you wanted a catalogue, you had to buy it. Montgomery Ward was gone by mid-2001, losing out to the discount stores like K-Mart, Target and Wal-Mart; and Sears had to change tactics to remain afloat by expanding its line of brand offerings.

187PC – Chapter 8

Penney's mostly sold clothing, but Sam Walton began working at a JC Penney in Des Moines, Iowa in 1940. Walton later went on to found future retailer Wal-Mart in 1962. But Sam Walton has been dead for years, so who cares? And I already reminded you of Travis Dane's quote of Louis Pasteur.

In the years that followed, we never learned who attacked the United States or why. We accepted that they attacked because they wanted to with the identity of the *they* being only speculation. The targets had been a combination of counterforce (military) and countervalue (civilian). The death tolls weren't as bad as they could have been, only 100 million rather than the 80-90% speculated.

We struggled in the years immediately following the war. Some firms never reopened their doors while others were making great strides in their recoveries. Once the radiation fell to an acceptable level, Hornady resumed manufacturing. It wasn't all that important to us because we had ammo to burn.

We located enough older diesel tractors with simple ignition systems to farm our half section and feed ourselves and our livestock. Several other farmers either had older equipment or found it and we had more than enough competition. Neither Sarah nor I returned to teaching because the state of Nebraska was hard pressed to reopen the University of Nebraska.

With the demand for agricultural products high, we farmed those extra acres and eventually acquired the other half section at a sheriff's sale due to back taxes, the owners having died in the war. During the reestablished growing season, we worked from before sunup to well after sundown. We erected galvanized grain bins, retaining our harvests until the market gluts passed and earned near top dollar.

Sarah became a school teacher teaching grades K-8 in a classroom/multipurpose trailer we hauled in and set up. All 6 trailers had been filled not long after they were setup and Rudy did the hiring, giving a 10 point preference to Marines and a 5 point preference to Soldiers. It was an unspoken preference because it was discriminatory. Each person chosen had a different trade, an electrician, a carpenter and a genuine, died in the wool, farmer.

For several years we maintained guard towers at the home place and directly opposite on the second half section, keeping the maximum range to ~1245 yards or 1,138 meters. We had less than a dozen incidents and eventually stopped staffing the guard towers, relying solely on the enameled alarm wires. They eventually fell into disrepair and we were back on a pre-disaster footing.

Paul's only interest was in learning farming and Angela's in becoming a homemaker. Economics is a practical subject and both took an interest in learning general Economics from Sarah. Philosophy is much more esoteric and neither was interested. In order

to get them into the prepper mindset they were assigned to read Jerry and TOM's stories along with HalfFast's *Lights Out*, Grand's *Normal* and Flight ER-Doc's *Paradise*.

I explained that I'd never met any of the authors except for TOM. They wanted to know what he was like. I told them he was a Crusty Old Curmudgeon and if he was still alive, had to be around 90. When they pressed for details, I explained that he'd given his gun collection to his younger son and, in an act of repaying a perceived debt I'd furnished him with a replacement gun collection to included firearms he wrote about wanting but never acquired. I didn't elaborate but told them he didn't have anything we didn't have that I knew of.

Some months after that, a Jeep pulled in and a man close to my age got out. He asked if I were Professor Paul Grey and I acknowledged that I was. He said his name was Damon Paul Ott and he had someone with him that wanted to sit and visit a while. When he got a conventional wheelchair out of his Jeep, I had a suspicion who that might be and gathered up Sarah, Paul and Angela.

"You look the same."

"I feel the same, just older."

"How are things in Arkansas?"

"Some good, some bad and I feel every day of my 91 years. Sharon died a few years back. Both of our daughters were in Palmdale and weathered Yellowstone, but were killed in the missile attack. They hit Palmdale, I suppose, because of the Skunk Works.

"Damon is my oldest and he volunteered to bring me up here to say goodbye and thanks for the memories. As much as I liked the Tac-50 A1R2, it was simply too much gun for me. I swapped the M-21 for my Loaded and put it to good use when it was needed. The same can be said for all of that gun collection you gave to me. I thought about and decided to keep them off the books just for the hell of it. We've reloaded the .50BMG brass to the limit and need more ammo. Do you have an in with Hornady?"

"I did, but it's been a while. They had minimum purchase quantities. Don't know if they still do."

"Honey, lunch is ready; invite our guests to join us."

"Watcha havin'?"

"Sandwiches. Maid-Rites and shoestring fries."

"We'll join you, thank you."

"You really do like Maid-Rites. Is it the same for breaded pork tenderloins?"

“They’re my favorite food besides beans, rice and soft corn tortillas.”

“Eat a lot of that, do you?”

“That and soup... got no teeth left. ‘Course the remains of several of my teeth are just below the gum line and I don’t have too much trouble gumming food enough to swallow.”

“It’s late in the day to drive to Grand Island. Care to spend the night and run over tomorrow?”

“It’s just past noon and it’s only 100 miles so I rather do it today. I have the cash to pay for a minimum order. I called them and they still accept cash.”

“I didn’t realize the long distance was up.”

“Only because the government didn’t breakup AT&T’s Long Lines Unit. The government was in control of some real buttheads. Southeastern Bell Corporation started buying up the various segments of AT&T, doing so under the name SBC. When they acquired the original parent, they changed their name to AT&T. They own the Long Lines Unit, a misnomer since it’s a C Band system and uses satellites. I have a curious mind and collect information for something to do, as long as I don’t forget halfway through what I was looking for.”

“Interesting.”

“You surprise me Paul. I figured the first words out of your mouth would be from *Big Jake, I thought you was dead.*”

“The thought did occur to me.”

“I can’t live forever; but, I just plain too ornery to die. After I outlived my old man every day was a bonus and since my heart is sound, I’ve racked up a lot of bonus points.”

“You wrote that bad hearts was a family trait.”

“Yep. And I’ve been smoking cigarettes for 75 years, so doesn’t that beat all?”

“Still smoke KOOLS?”

“Whenever I can get them. They actually help my COPD by keeping my bronchi open. Other menthols will do in a pinch and I keep a jar of Vicks handy. So what’s the minimum order?”

“One pallet; all one cartridge or mixed.”

“Damon, after we finish set out those cases for Paul.”

“What did you bring me?”

“Raufoss, LAWs and lemons.”

“Lemons?”

“M-61 hand grenades. A friend of Derek’s located a bunker full.”

“They still good?”

“Oh yeah and I like them better than the M-67s. The Raufoss test fired ok and the LAWs were produced in 2010.”

“I wouldn’t think you could throw a grenade far enough.”

“I can’t; that’s beside the point. You should see what they do to the OpFor.”

“Are you still having trouble in Arkansas?”

“Some; it’s getting better. Don’t use a handgun much these days so I just use my Load-ed and the new 590A1 SPX. We were able to load up on the Brenneke Black Magic slugs and the 3” Remington Express Magnum 00 and #4 buckshot.”

“You need some 178gr?”

“Nah, have lots of the M118LR. Need 168gr .308 match and 750gr .50BMG match. That 178gr is just a bit heavy for the M-21 and we get better results with the 175gr M118LR. I need to use the bathroom and we can be on our way. Damon if you please, the cargo?”

He was able to use a cane to get to the bathroom once he was out of the wheelchair. It must be awful getting old. He seemed to be having problems with his balance. Eventually, he returned and plopped back down in the wheelchair and Damon came in, used the bathroom and pushed him out to the Jeep. They were pulling an open 16’ trailer.

It was readily apparent why he needed me along; Hornady wouldn’t sell to him, only to me. When they told me the total, he handed me the cash and I paid. He asked if we had room to put them up for the night or should they just be on their way. I told him they’d have to share a bedroom, but we could put them up. He then asked if they could sleep in the shelter and I agreed.

Sarah had tenderloins thawed and we had tenderloins and shoestring fries for supper. We had all finished by the time he was $\frac{1}{3}$ the way through the tenderloin. So, I poured coffee and sat down to visit.

“Folgers?”

“Starbucks.”

“Never mind. Get that from Costco?”

“Yes, we did.”

“Don’t suppose you have a second coffee pot?”

“We have an old fashion percolator we use on camping trips.”

“Could someone make me a pot of this?” he asked handing over a 1 pound can of French Market.

“How do you measure the grounds?”

“Same as you would measure Folgers.”

If nothing else, he was consistent. Folgers coffee, KOOLS and he probably still used Charmin. Arkansas is a leading rice producing state and I wondered if anyone grew jasmine rice.

“You get your rice from Costco?”

“Riceland is the largest rice processor in the country and accounts for nearly half of all rice production in the US. They produce jasmine rice and we buy it in bulk, a ton at a time in 100 pound bags. We’re using up the last of the great northern beans slowly and I’m only eating pintos. We make our own corn tortillas from Maseca brand masa and water. We form them up using a press and get a reasonably uniform result. They’re dried slightly and heated on a griddle and kept hot in a Styrofoam container. I save the leftovers and cut them up to deep fry for corn chips.

“Folgers has a large coffee production facility in New Orleans and the local favorite coffee is French Market which I also favor. So, once in a while Damon makes a trip to New Orleans and brings back a trailer full of coffee. You figure out who attacked the US yet?”

“No, do you know?”

“Been doing some research since they got the net back up. They struck F. E. Warren AFB, Minot AFB and Malmstrom AFB. So that means we were attacked by Russia since they also hit other counterforce targets, some countervalue targets and some combined targets. They are the only country with enough deployed weapons to pull it off. I have no idea why they attacked though. I did hear some scuttlebutt that they were hard hit agriculturally by the Yellowstone eruption.”

“The war went global didn’t it?”

“Just like I predicted, it was a Global Thermonuclear War. Sort of; some of the countries only had fission warheads rather than fusion warheads. Didn’t make much difference to the people where the warheads landed. I warned people about the range of that Jericho III missile, remember that?”

“You said it would reach Australia or the US.”

“Exactly. The quote I used said, ‘It is estimated that the Jericho III is an ICBM which entered service in 2008. The Jericho III is believed to have a three-stage solid propellant and a payload of 1,000 to 1,300 kg. It is possible for the missile to be equipped with a single 750 kg nuclear warhead or two or three low yield MIRV warheads. It has an estimated launch weight of 30,000 kg and a length of 15.5 m with a width of 1.56 m. It may be similar to an upgraded and re-designed Shavit space launch vehicle, produced by Israel Aerospace Industries. It probably has longer first and second-stage motors. It is estimated that it has a range of 4,800 to 11,500 km (2,982 to 7,180 miles).

“According to an official report which was submitted to the American congress in 2004, it may be that with a payload of 1,000 kg the Jericho III gives Israel nuclear strike capabilities within the entire Middle East, Africa, Europe, Asia and almost all parts of North America, as well as within large parts of South America and North Oceania. MissileThreat.com reports: *The range of the Jericho 3 also provides an extremely high impact speed for nearby targets, enabling it to avoid any Anti-Ballistic Missile (ABM) defenses that may develop in the immediate region.* On 17 January 2008 Israel test fired a multi-stage ballistic missile believed to be of the Jericho III type, reportedly capable of carrying *conventional or non-conventional warheads.* On 2 November 2011, Israel successfully test fired a missile believed to be an upgraded version of the Jericho III at Palmachim; the long trail of smoke was seen throughout central Israel.’

“I believe that Israel had at least 200 thermonuclear weapons by 2012. I further believe that they could equip their entire fleet of Jericho III missiles with 3 thermonuclear MIRV warheads, minimum. I don’t know how it fits into the scheme of things, but that’s what I found out.”

“So, where do you go from here?”

“Mountain View. Derek is teaching at Ozarks College when he’s not off saving the state or country. I can’t do much beyond guarding the home place. That’s not much to do, they live in the community.”

“I thought he was retired.”

“He is, officially. He and some of his friends from his old ANG unit decided to right a few wrongs, if you get my drift. My donation to the cause was the Tac-50 and the Hornady

ammo plus swapping the M-21 to get my Loaded back. They shot most of the Hornady up, thus the trip. The 168gr match is for my Loaded. I can shoot it a lot farther with iron sights than there's room to shoot. Most of the time it's just me and the Mossberg."

"You said you don't use a handgun much these days."

"I took the 3½" crossdraw holster and wear it on the gun belt minus the 5½" holster. I use the cowboy loads so the recoil doesn't kick the revolver out of my hand. The only .45acp rounds I have kick too much."

"Anything special for breakfast?"

"I have a box of Malt-O-Meal if Sarah wouldn't mind fixing it."

"What's that?"

"It's a combination of malted and farina wheat made in Minneapolis."

"Been eating it long?"

"About 80 years when I get to pick the hot cereal. At my age, everything happened a long time ago. I became a Life member of the NRA 69 years ago. They had another promotion and I finally moved to Benefactor. They do that when they need money to fund another fight with the government. I'm not the night owl I used to be so I'll see you in the morning. Damon will help me down the stairs."

187PC – Epilogue

That's last I ever saw TOM. Damon was back 5 years later for more ammo. Sharon's share of the estate was evenly divided between Amy, Lorrie or their children. But, they were dead and Gary outlived everyone except Damon and Derek so they divided the Trust 50-50.

Damon finally had a set of firearms, Gary's, and Derek the remainder that included all of the single action revolvers and Winchester rifles. He spent the money he'd promised to spend on a .50 caliber rifle on ammo for the Tac-50. The country pulled itself up by the shoestrings restoring the infrastructure, not always in the same place. The countervalue targets wouldn't be habitable for years.

Paul Jr. became the farmer he wanted to be and Angela married a farmer. Each farmed a section of land. Angela's main interest was in breeding horses and she acquired two purebred lines, Moroccan Barbs for riding and Morgans for harness. A local Amish group was building buggies and carriages for her. They also produced the harnesses for the carriage horses.

Sarah and I are mostly retired. She serves on the Lincoln Board of Education and I participate in SASS and long range shooting matches. That's our story. What was the old TV show closing line? *What sort of day was it? A day like all days, filled with those events that alter and illuminate our times... all things are as they were then, and you were there.*

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